

Vlite Series Laser Specifications:				
Model	Vlite-135	Vlite-200	Vlite-380	Vlite-500
Wavelength (nm)	532			
Repetition Rate (Hz)	0-15	0-15	0-10	0-10
Pulse Energy (mJ)	135	200	380	500
Energy Stability* ¹	<2%	<2%	<2%	<2%
Pulse Duration (ns) * ²	6-8	6-8	6-9	6-9
Beam Diameter (mm)	7	7	9	9
Beam Divergence (mrad) * ³	<3	<3	<1	<1
Pointing Stability (μrad)	<50	<50	<50	<50
Spectral Purity	≥99.8%	≥99.8%	≥99.8%	≥99.8%
Near Field Beam Profile	Flat-top, Uniform			
Jitter* ⁴ (ns)	±0.5	±0.5	±0.5	±0.5
Light Arm (optional)	7 Joints, 1.8 m			

High-repetition Rate Laser Specifications:			
Model	Vlite-Hi-25k	Vlite-Hi-30k	Vlite-Hi-100
Wavelength (nm)	527	527	532
Repetition Rate (Hz)	0.1-10k	0.1-10k	0-100
Pulse Energy (mJ)	25@1kHz	30@1kHz	100
Energy Stability	<1%	<1%	<3%
Pulse Duration (ns) * ²	~220	~220	10-15
Beam Diameter (mm)	5	6	7
Beam Divergence (mrad) * ³	<5	<5	~3
Spectral Purity	≥99.8%	≥99.8%	≥99.8%
Jitter* ⁴ (ns)	<3	<3	±0.5
Light Arm (optional)	7 Joints, 1.8 m		

Note:

*1. 100% Pulse to Pulse energy stability measured over 1 hour;

*2. Full width half max (FWHM);

*3. Full angle at 1/e² of the peak;

*4. With respect to external trigger;

*Beam Profiles: flat in near field and >90% fit to Gaussian in far field.



Doing our best for your application
 Doing our best for your application



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Vlite Series

—Ideal Dual-Cavity Laser for PIV





► Measuring the instantaneous velocity field within a truly volumetric region of the flow



► Measuring velocity field/vorticity field within a low/high speed flow



► Micro PIV



Applications:

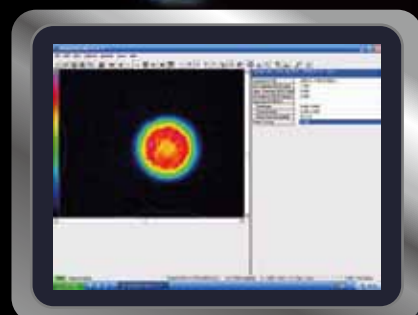
- 2D/3D, stereo PIV
- Time-resolved PIV
- Tomographic PIV
- Micro PIV

Features and Benefits:

- High output energy: 10-500 mJ at 532nm
- DPSS high frequency laser available
- Low timing jitter and high uniformity
- Frequency continuously adjustable
- 355nm, 266nm available
- Arm and light sheet device optional
- Compact, efficient and stable design



► Power Supply & Cooling



► Beam Profile (Flat-top, Uniform)



► Easy Lamp Change

Beamtech Vlite and Vlite-Hi (100Hz, kHz) series dual-cavity lasers are designed especially for various 2D/3D particle image velocimetry (PIV), stereo-PIV, and micro-PIV application. The reticulated apodization mask resonator, the beam homogenization technology, can provide high energy (up to 500mJ) and high repetition rates with uniform intensive distribution that very useful for PIV application in the field. The engineering technologies have been used for Vlite to guarantee the performance and

reliability, such as low jitter (<1ns), water-proof laser head with beam delivery arm, and free alignment of beam overlap. During the past ten years, hundreds of Vlite series lasers have been shipped worldwide for various PIV applications, such as high speed flow field measurement, marine bionics researching, aeronautics, astronautics, spray or flame, and other kinds of gas flow and liquid flow field.

Vlite Series

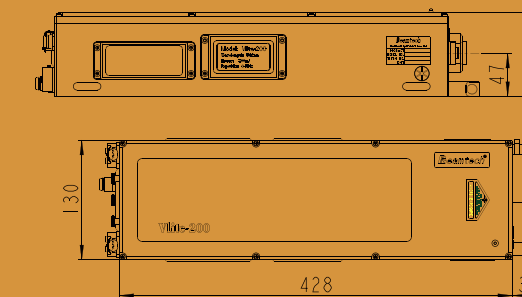
—Ideal Dual-Cavity Laser for PIV



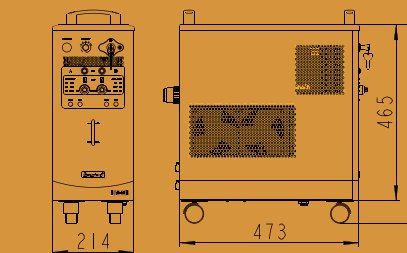
Mechanical and Utilities:		
Size (L×W×H)	Vlite-135/200 Laser Head	428 mm×130 mm×91 mm
	Power Supply and Cooling Unit	473 mm×214 mm×465 mm
	Vlite-380/500 Laser Head	771 mm×300 mm×147 mm
	Power Supply and Cooling Unit	568 mm×294 mm×485 mm
	Vlite-Hi/ Laser Head	788 mm×380 mm×180 mm
	Power Supply	749 mm×370 mm×626 mm
	Chiller	750 mm×385 mm×630 mm
Electrical Service	220 V-50/60 Hz-10 A	
Water Service	3L, Distilled Water	
Operating Temperature	10~30 C	
Storage Temperature	5~50 C	
Umbilical Length	3 m	

Note:

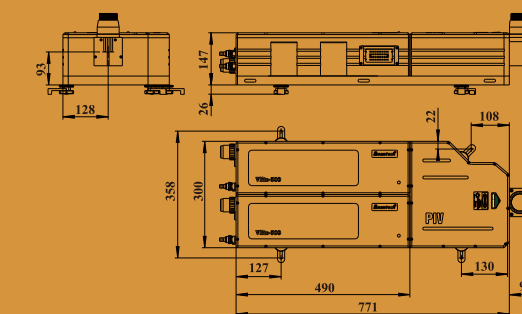
Due to continuous product improvement, some dimensions are subject to change without notice.



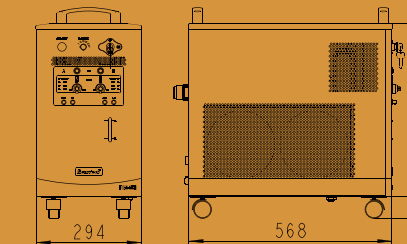
Vlite-135/200



Power Supply & Cooling System



Vlite-380/500



Power Supply & Cooling System