



Dual pulse PIV laser

Vlite series lasers have been developed since 2000. This series are specifically designed for various 2D/3D PIV, Tomographic PIV and Time-resolved PIV application. With over 20 years of continuous improvement and upgrades, this product meets the demands of PIV applications in terms of beam uniformity, beam combining stability, and environmental adaptability.

Vlite series lasers provide both multimode and VRM mode beam profile with good beam quality. The long term engineering technologies have ensured the working reliability and stability of this series. Features as optical shutter, flow sensor, power supply interlock make sure the safety use as the top priority.

The Vlite series low repetition rate PIV dual-pulse lasers covers pulse energy ranging from 135mJ to 500mJ, with repetition rate 0-15Hz continuously adjustable, matching the frame rates of different PIV cameras. The design of beam uniformity and the thermally insensitive resonator make it an excellent illumination source for flow field lighting, with high adaptability to various environments.

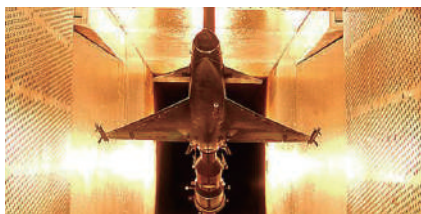
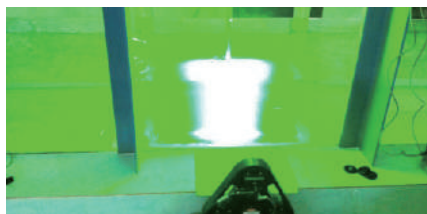
The mechanical structure of the Vlite series focuses on the stability of beam combining, while the optical design emphasizes the consistency of dual-cavity lasers. The integrated design of the light arm and laser ensures user-friendly and efficient experiments. Additionally, the Vlite series offers a variety of optical light sheet, providing a wide range of optical solutions for flow field testing.

Features

- Pulse energy : 135/200/380/500mJ optional
- 0-15Hz Repetition rate continuously adjustable
- Integrated design of laser, light arm, and optical light sheet
- High beam combining stability
- Beam uniformity designed for PIV applications
- Jitter <1ns, high synchronization precision
- Compatible with various PIV systems

Applications

- Micro PIV
- 2D/3D PIV
- Tomographic PIV



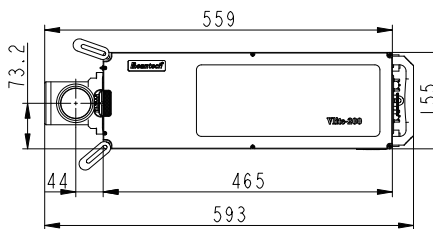
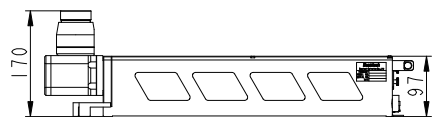
All images from Website and Customers

Specifications

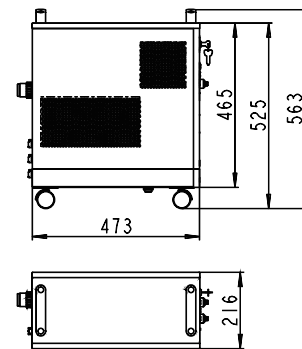
Models	Vlite-135	Vlite-200	Vlite-380	Vlite-500
Wavelength	532nm			
Repetition Rate	0-15Hz	0-15Hz	0-10Hz	0-10Hz
Pulse Energy	2*135mJ	2*200mJ	2*380mJ	2*500mJ
Energy Stability ¹ (RMS)	≤1%	≤1%	≤2%	≤2%
Pulse Width ²	6-9ns	5-8ns	6-9ns	6-9ns
Divergence ³	≤3mrad	≤3mrad	≤1mrad	≤1mrad
Pointing Stability(RMS)	≤50μrad			
Jitter ⁴ (RMS)	<1ns			
Beam Diameter ⁵	6±1mm	6±1mm	9mm	9mm
Near Field Beam Profile	Flat-top, Uniform			
Spectral Purity	≥99.8%			
Cooling	Air to water			
Electrical Service	220V-50/60Hz-10A			
Power Consumption	650W	650W	1600W	1600W
Umbilical Length	3m			
Light Arm(Optional)	7 Joints ,1.8m			

- i** 1. 100% Pulse to Pulse energy stability measured over 1 hour;
2. Full width half max (FWHM);
3. Full angle measured at 1/e² of the peak;
4. With respect to external trigger;
5. Measured at the laser output;

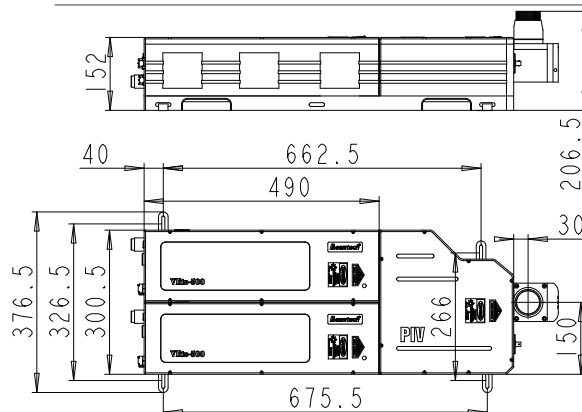
Dimensions



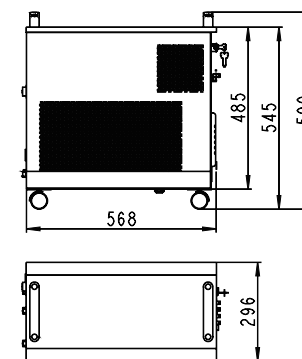
Vlite-135/200



Power Supply & Cooling System



Vlite-380/500



Power Supply & Cooling System