

FireFLY-LS

Illumination for Advanced Techniques
in High-Speed Imaging

The Compact Short-Pulsed Laser for Illumination in Light Sheet Applications



FireFLY-LS Model

500 W light delivery
system for visualising
flow, velocity and fluid
mechanics

Designed for

Time resolved PIV
High-speed PIV
Standard PIV

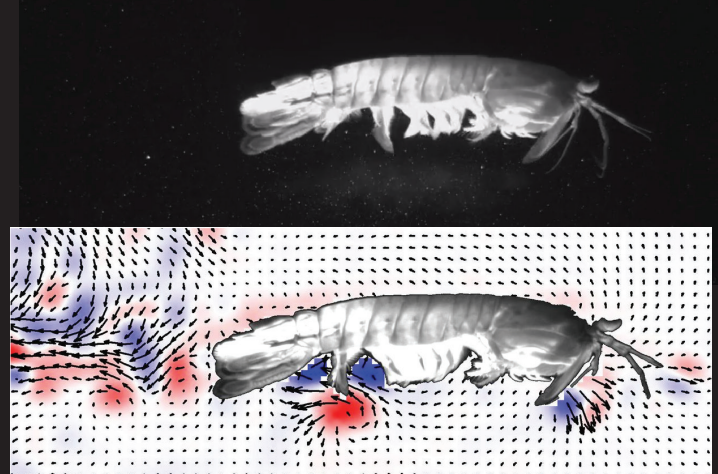


The Light Sheet (LS) Model

The FireFLY-LS is designed with PIV imaging in mind. Whether for time resolved, high-speed or standard, the FireFLY-LS is a compact, affordable and reliable laser illumination system for advanced imaging techniques.

An easy-to-use, flexible light delivery system with a simple interface makes the FireFLY-LS perfect for illuminating high-speed imaging events in applications for PIV, flow visualisation and fluid mechanics.

Light sheet illumination example -
Time resolved PIV



Courtesy: The Murphy Lab, University of South Florida

FireFLY-LS

Short-pulsed laser illumination for light sheet applications in high-speed imaging

Technical Specifications



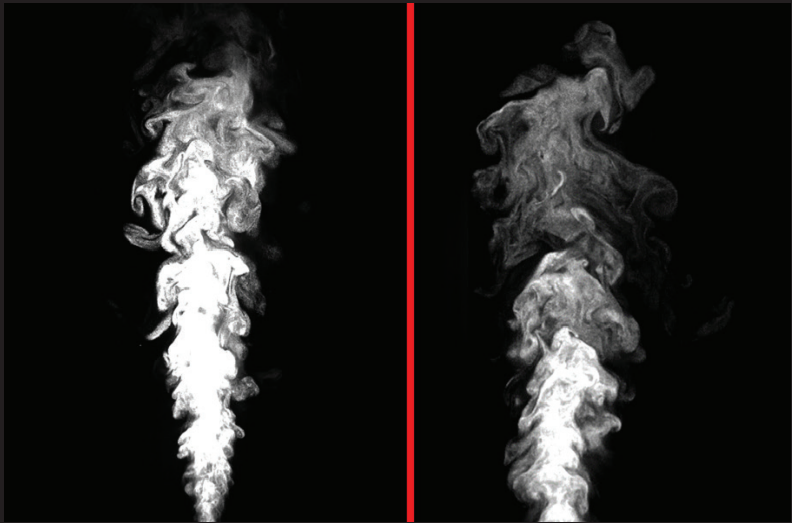
Name		FireFLY-LS laser
Laser Class		Laser Class 4
Wavelength		808 nm
Laser power		500 W*
Pulse duration range		50 ns to 100 µs (1% duty cycle limited)
Maximum pluse frequency		10,000 Hz
Number of pulses per burst		254
Voltage		100 to 240 VAC
Frequency		50/60 Hz
Dimensions		Laser Head (no optic): 205 mm x 125 mm x 70 mm Controller: 310 x 200 x 80 mm
Weight		Laser head: 3 kg Laser Controller: 2.6 kg

*at the diode

Light sheet illumination example - Air application

FireFLY500-LS 1kHz
(FOV 120mm x 120mm)

FireFLY500-LS 10kHz



Applications

- Time resolved PIV
- High-speed PIV
- Standard PIV
- Flow visualisation
- Fluid mechanics
- General high-speed imaging

Features

- High-repetition rate to keep up with high-speed events
- Trigger easily from any camera, high speed or low speed
- Fully sealed air cooled laser head



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