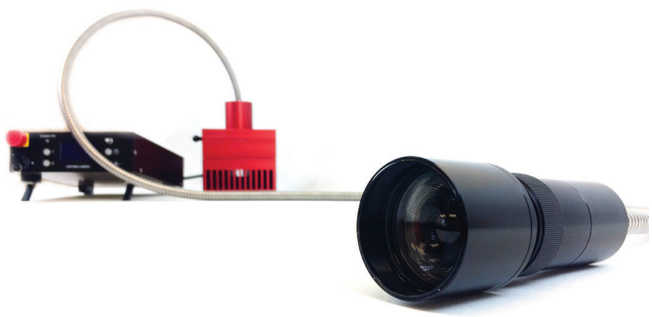
Short-Pulsed Laser Illumination
For High-Speed Imaging Applications

Fire*BIRD* Series



Fire*BIRD* LLG
Flexible Light Guide

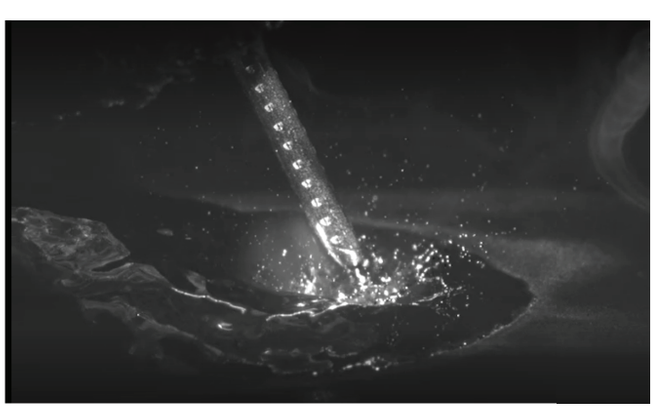
Fire*BIRD* DAI
Direct Area Illumination

Fire*BIRD*	Designed as	
1000W laser light source synchs with high-speed cameras	Top performance, short-pulsed laser illumination for high-speed imaging	OXFORD LASERS

High-powered laser light source that illuminates on a single wavelength (808nm). The Fire*BIRD* has been designed to easily interface with high-speed camera systems for capturing the highest quality images of difficult-to-capture processes such as bright events, energetic events and highly dynamic processes in advanced imaging techniques such as Schlieren and PIV.

With direct area illumination or a flexible light guide delivery arrangement, the Fire*BIRD* makes high speed imaging easy - enabling you to view and optimise your process.

Short-pulsed laser illumination for capturing high quality images in difficult-to-image processes such as bright events like welding

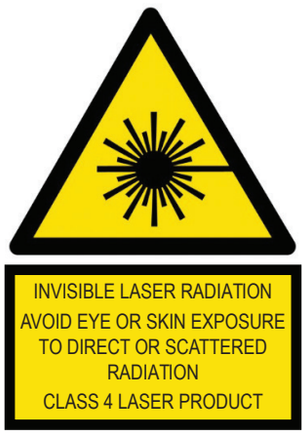


Applications

- Flow visualisation
- Fluid mechanics
- General high-speed imaging
- Energetic events
- Ballistics
- Welding illumination
  - TIG wire additive manufacturing
  - Laser cladding
  - Gas metal arc welding (GMAW)
  - Pulsed-gas metal arc welding (MAW-P)
  - Metal inert gas (MIG) welding

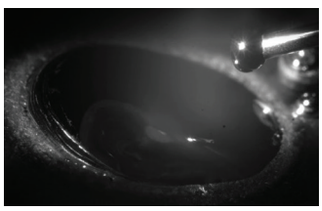
Features

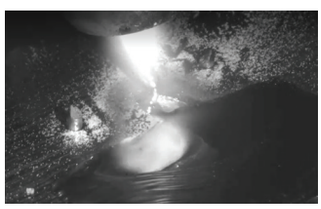
- High output power for bright subject illumination
- High repetition rate to keep up with high-speed events
- Trigger easily from any camera, high speed or low speed
- Fully sealed air-cooled laser head

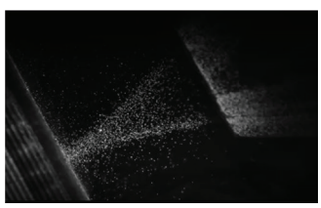


Integrated solution to your bright-event imaging challenges and tailored to your application.

Adjustable optics allow you to easily adjust your illumination to match the camera field of view.







Technical Specification

Name	Fire*BIRD* laser
Wavelength	808nm
Laser power	1000W (at the diode)
Pulse duration range	50ns-100µs (1% duty cycle limited)
Minimum pulse separation	330ns (burst mode only)
Maximum pulse frequency	100,000Hz
Maximum burst frequency	3,000,000Hz
Number of pulses per burst	254
Laser class	Laser Class 4
Voltage	100 to 240VAC
Frequency	50/60Hz
Dimensions (mm)	Head: 230 x 150 x 150 Controller: 270 x 200 x 65
Weight (kg)	Head: 3.3 Controller: 2.1

For over 45 years, Oxford Lasers have been working at the leading edge of laser technology. Providing products and services to a variety of industries for the advancement of production processes, R&D and development applications.

OXFORD LASERS

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