

# Bernoulli LIBS

Small, light, versatile double pulse LIBS laser.

The **Bernoulli LIBS** contains two laser oscillators that are combined on to a single beam axis in a single head. The lasers are fitted with low divergence optics to ensure high focusability and make it highly suited to LIBS applications that utilise the double pulse technique. The pulses can be used to reheat the plasma or as a cleaning pulse.

## Portable

Compact size – strong monolithic aluminium body.  
Fast detachable connections at the laser head and PSU – easy to transport and set-up.

## Rugged

Vibration and shock proof – for use in harsh environments.  
Fully sealed laser head – protection from dust and moisture.  
Ruggedized oscillator – fixed optics design adds to oscillator alignment stability.

## Motorised Safety Shutters

Automated control via LUCi™ remote interface.  
Variable time delay.

## Easy to Use

Auto start up and standard touch screen control.  
LUCi™ remote interface - provides all functions at the touch of a button.  
Able to be operated in all orientations.

## Attenuators

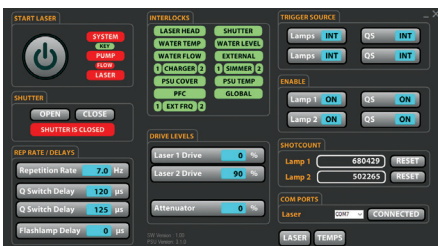
2 motorised attenuators (one per oscillator) for independent energy adjustment.  
Full control to vary the intensity of the two pulses.

## Intelligent

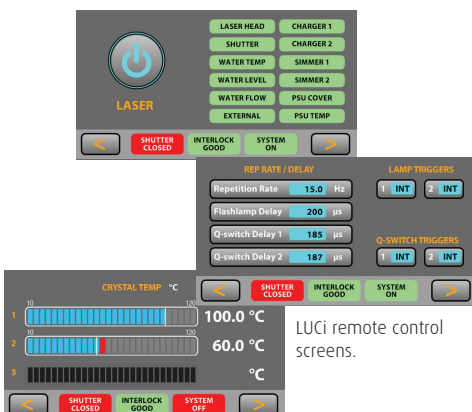
MOBIUSTM - Microprocessor control and monitoring of all laser parameters.  
Standardised PSU – Mobius™ configures the PSU to match the laser head.

## Reliable

2 Year warranty includes Optics, PSU & Laser head.



PC control screen



LUCi remote control screens.

# Bernoulli LIBS

## PERFORMANCE SPECIFICATION

Model	B-LIBS 250-10	B-LIBS 225-15	B-LIBS 200-20	B-LIBS 150-25	B-LIBS 100-30
Wavelength (nm)	1064nm	1064nm	1064nm	1064nm	1064nm
Pulse repetition rate (Hz)	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>	<b>30</b>
Pulse energy @ 1064nm (mJ) <sup>(1)</sup>	<b>250</b>	<b>225</b>	<b>200</b>	<b>150</b>	<b>100</b>
Pulse to pulse energy stability (%pk-pk)	<2	<2	<2	<2	<2
Pulse width (ns) <sup>(2)</sup>	≤10	≤10	≤10	≤10	≤10
Near field beam diameter (mm)	5	5	5	5	5
Beam divergence (mrad) <sup>(3)</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
Pointing stability (μrad)	<50	<50	<50	<50	<50
Polarisation	Horizontal and vertical cross polarised beams.				
M <sup>2</sup>	<2	<2	<2	<2	<2
<b>System requirements</b>					
Power input (VAC)	90-250 (50-60Hz)				
Operating ambient (°C)	10 to 30				
Storage ambient (°C) <sup>(4)</sup>	5 to 50				
Coolant	Deionised Water				
External trigger	5V TTL				
Standard umbilical length (m) <sup>(5)</sup>	3				
Power supply unit <sup>(6)</sup>	LPU 550				
Umbilical (m)	3				

(1) Per laser at maximum rep. rate.

(2) At maximum energy (FWHM)

(3) Full angle for 90% of the output energy.

(4) All cooling water removed.

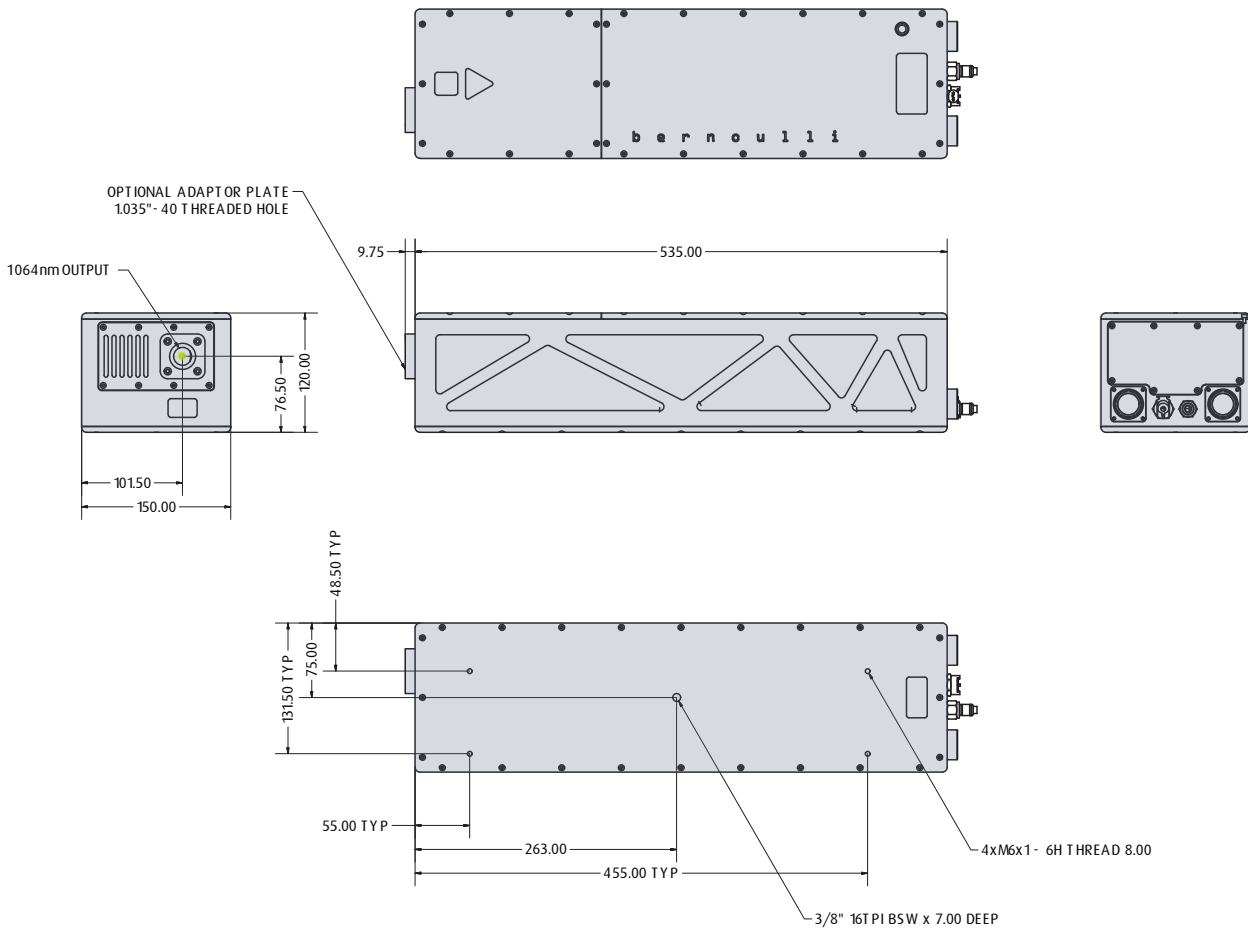
(5) Up to 10m is available

(6) Rackmounted PSU available

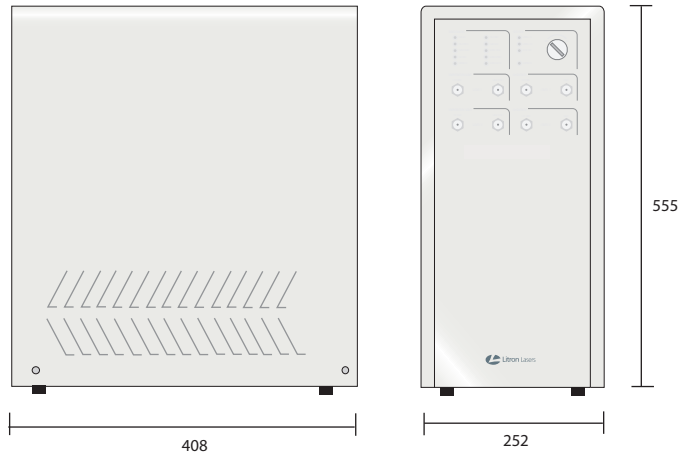
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## DIMENSIONAL SPECIFICATION

### Laser Head



### LPU550 Power Supply



### LUCi Remote Controller



Our policy is to improve the design and specification of our products. The details given in this document are not to be regarded as binding.

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