

LLD 600

Liquid Fiber Delivered Diode Laser



HIGHLIGHTS

- Plastic Processing
- Plastic Welding - Edging Welding - Posing Tape
- Perfect Flat-top beam profile
- Liquid Fiber Optic delivery
- Small Footprint system
- Custom Spot Size and Shape

TECHNICAL SPECIFICATIONS

Optical parameters

Diode Power	600W
Wavelength	808 / 980nm (others available upon request)
Working mode	CW
Aiming beam wavelength (LED)	520nm (included as standard)
Beam delivery	Liquid Fiber Optic (Patent Pending Technology)
Optical Efficiency @ Processing Head Output	> 87%
Spot Diameter	from 5 mm as minimum size

Absolute Ratings

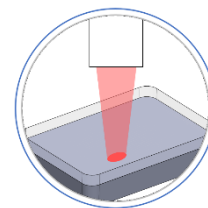
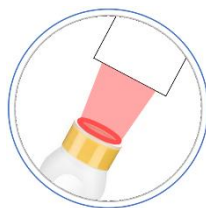
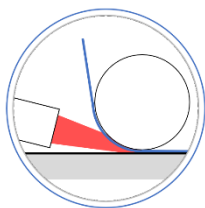
Operating Current	100A
Operating Voltage	<12V
Aiming beam operating current	150mA
Aiming beam operating voltage	12V
Storage temperature	+5 to +50 °C
Operating case temperature	+15 to +35 °C
Relative humidity	30 to 75 % not condensing
Min Optical Fiber bend radius	230mm
Optical Fiber length	3mt (standard)

* Reliability impacted if operating point deviates from reference condition

* Conditions unless otherwise stated: typical parameters at 25°C ambient temperature.



Class 4 Laser Product



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The process advantages of the LYOCON diode laser

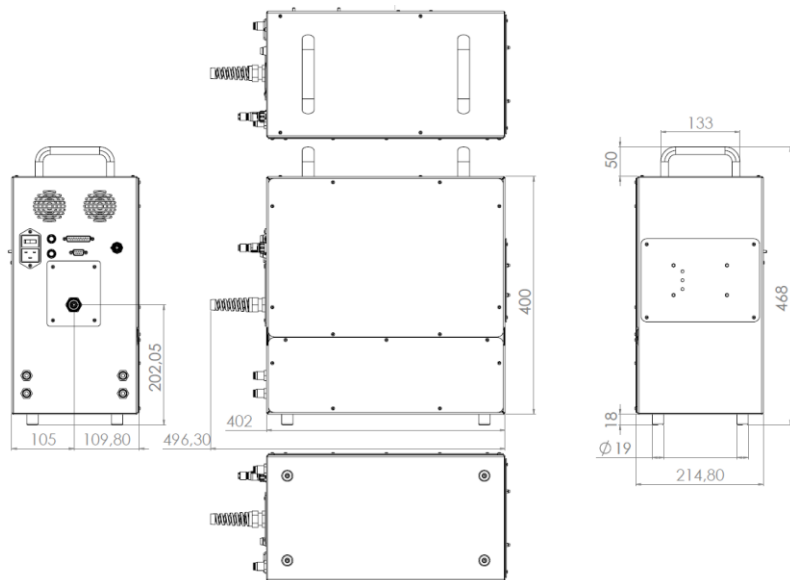
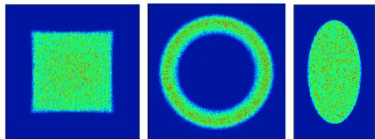
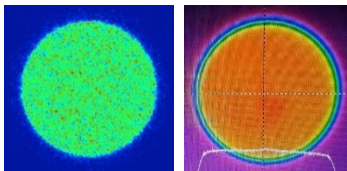
Thanks to the homogeneous intensity distribution and energy efficiency, which can even be optimized with specific optics, the focus heats the plastic very quickly and gently in specific joint zone, resulting in a homogeneous melt.

LYOCON welding diode laser system advantages

The **flat-top beam profile** of the diode laser, which gives a homogeneous focal intensity distribution, and the configurable **zoom optic** with adjustable focus, ensure an optimal process control during the welding process. Thanks to the homogenous heat of the flat-top delivered beam, there won't be any risks of high heat concentrations in the focus and overheating during the welding process. The **adjustable focusing head** gives a wide range of benefits when there are different edge measures to be processed. The spot can vary from minimum 5 mm diameter up to what the specific application requires.

Our state of the art diode coupling technology and the use of **patented Liquid Fiber Optic delivery**, guarantee high process stability, great energy efficiency, extreme small foot print and overall system light weight that allow the customer to use this technology on demanding welding application.

Different spot geometries customizations are available following application requests.



LYOCON guarantees an easy maintenance of laser welding system thanks to its product modular structure which allow also onsite service. Available through remote connection a full diagnosis of laser parameters and setup.

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