



**THINK LASER SRL**

EXPLOIT THE PHOTONS  
SPINOFF OF THE UNIVERSITY OF PADOVA



# TLS 100W

## High Power Diode Laser System



Think Laser TLS100W is a Semiconductor laser source optimized for industrial applications.

The system incorporates 100W fiber-coupled diode laser source controlled by an optimized electronic interface.

The optical power is guided by an optical fiber to an focusing head that directs the laser beam on the workpiece.

### Features

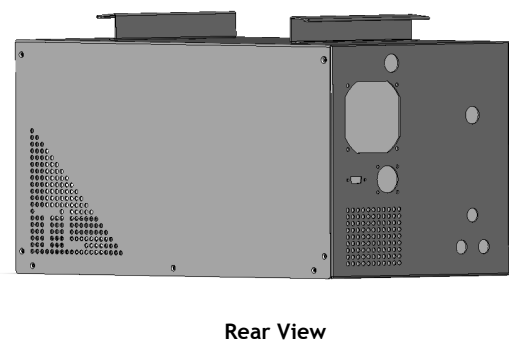
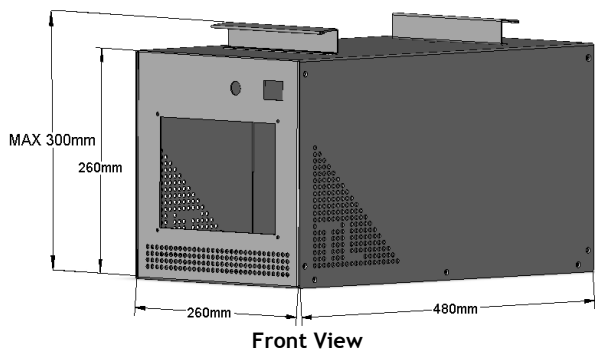
- Up to 100W of diode laser power
- Fiber delivery - 200 $\mu$ m fiber core
- Friendly touch screen interface
- 640nm pilot beam as optional
- Water cooled
- CANOpen interface with DS301 protocol
- Capability to manage one driver with one analog signal +/-7,5V or digital PWM or Step/Direction signal
- Simple plug and play integration
- Optional Focusing Head TLF (1 or 1/2'')
- Optional feedback with TLP Optical Pyrometer

### Applications

- Plastic welding
- Thin metal welding
- Marking
- Soft soldering
- R&D

<b>Specifications</b>	<b>TLS100W</b> High Power Diode Laser System		
<b>Optical</b>	Output power	W	Up to 100
	Wavelength	nm	810-980nm*
	Pulse format		CW
	Polarization		Random
	Fiber Length	m	2.5-3*
	Fiber core diameter	µm	200*
<b>Electrical</b>	Operatine Voltage	V <sub>AC</sub>	110-240
	Frequency	Hz	50-60
	Power Consumption	A/W	1.5/350
<b>Mechanical</b>	Dimension (LxWxH)	mm	260x260x480
	Weight	Kg	20
	Cooling Method		Water
<b>Environmental</b>	Operation Temperature	°C	+10 to +45
	Storage Temperature	°C	+10 to +70
	Relative Humidity	%	0 to 70
	CE Marking		EMC Directive: 2004/108/EC Reference Standards: EN 55014-1, EN 55016-2-1, EN 55016-2-2, EN 55016-2-3, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-11 Low Voltage Directive: 2006/95/EC Reference Standards: EN 60204-1
<b>Optional</b>	Custom firmware, TLF (1 or 1/2") Focusing Head with custom optics, TLP Optical Pyrometer		

\* On request different characteristics  
Software and hardware personalization could be done on request.



Think Laser offers a limited warranty for TLS Series lasers. For full details of this warranty coverage, please refer to [www.thinklasersrl.com](http://www.thinklasersrl.com).



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