

# PLS6MW Platform

## Expanded Material Possibilities

For the maximum in material processing versatility, consider the PLS6MW Multi-Wavelength Laser Platform. Unique among laser systems, the PLS6MW can make use of three different laser wavelengths to process the broadest spectrum of materials and applications. The Multi-Wavelength capability of the PLS6MW can be used to accomplish tasks that are impossible using only a single wavelength.

### *1.06 micron wavelength – Fiber Laser*

The PLS6MW can mark most metals and some plastics when configured with a 1.06  $\mu\text{m}$  pre-aligned fiber laser.

### *10.6 micron wavelength – CO<sub>2</sub> Laser*

The full breadth of organic and inorganic material processing capabilities are realized when the PLS6MW is configured with a standard pre-aligned 10.6  $\mu\text{m}$  CO<sub>2</sub> laser.

### *9.3 micron wavelength – CO<sub>2</sub> Laser*

For excellent results on certain plastics, the PLS6MW can be reconfigured with an interchangeable, pre-aligned 9.3  $\mu\text{m}$  CO<sub>2</sub> laser.



## Laser Technology Benefits

- ▶ **Software Controlled** - Any Windows<sup>®</sup>-based software with a print function can be used with the laser system.
- ▶ **Multi-Material** - Process an endless number of materials.
- ▶ **Multi-Process** - Cut, engrave, mark and produce photo images in one step.
- ▶ **Non-Contact** - Modify material without applying any physical force.
- ▶ **On-Demand** - Produce everything you need in real time, without waiting for hard-tooling.

## Uniquely Universal Features

### ▶ **Laser Sources**

Our patented, metal core, air-cooled, free-space slab, CO<sub>2</sub> lasers produce excellent beam quality with even power distribution, good near-field and far-field characteristics and long life. Dual lasers dramatically increase speed, edge quality and power.

### ▶ **Rapid Reconfiguration™**

Unique to ULS, Rapid Reconfiguration allows our modular platforms to be field-reconfigured with a variety of laser sources, in seconds, and without tools. Easily exchange laser wavelengths or wattage to change power, increase speed and throughput.

### ▶ **High Power Density Focusing Optics™**

High Power Density Focusing Optics (HPDFO™) focuses the laser beam to the smallest spot size available, producing images with tighter tolerances, making even miniscule engraving details sharp.

### ▶ **1-Touch Laser Photo™**

1-Touch Laser Photo is our popular software package that makes it quick and easy to reproduce stunning photographic images on nearly any material.

### ▶ **Multi-Wavelength Technology**

The PLS6MW has been engineered to support interchangeable CO<sub>2</sub> laser sources that produce 10.6  $\mu\text{m}$  and 9.3  $\mu\text{m}$  of laser energy at various power levels, and a fiber laser source that produces 1.06  $\mu\text{m}$  of laser energy.

# System Specifications

PLS6MW	
▶ Work Surface Area (WxH)	32 x 18 in (813 x 457 mm)
▶ Maximum Part Size <sup>1</sup> (WxHxD)	37 x 23 x 9 in (940 x 584 x 229 mm)
▶ Dimensions (WxHxD)	44 x 39 x 36 in (1118 x 991 x 914 mm)
▶ Rotary Capacity	Max. Diameter: 8 in (203 mm).
▶ Motorized Z-Axis Lifting Capacity	40 lbs (18 kg)
▶ Available Focus Lenses	2.0 / 4.0 / HPDFO™
▶ Laser Platform Interface Panel	Keypad and LCD display shows current file name, laser power, engraving speed, PPI and run time.
▶ Computer Requirements	Requires dedicated PC with Windows® 7/8/10 32/64 bit and one available USB port (2.0 or higher).
▶ Cabinet Style <sup>2</sup>	Free-standing
▶ Laser Options	CO <sub>2</sub> (10.6 μm): 10, 25, 30, 40, 50, 60, 75 W CO <sub>2</sub> (9.3 μm): 30, 50, 75 W Fiber (1.06 μm): 40, 50 W
▶ Approximate Weight	325 lbs (147 kg)
▶ Power Requirements	110V/10A; 220V-240V/5A
▶ Exhaust Connection	Two 4 in (102 mm) ports 500 CFM @ 6 in static pressure (850 m <sup>3</sup> /hr at 1.5 kPa).

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LASER SYSTEMS

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CDRH Class 1 safety enclosure for CO<sub>2</sub> and Fiber lasers<sup>2</sup>. Class 2 for red laser pointer.

<sup>1</sup> Maximum part size defined as used with 2.0 lens.

<sup>2</sup> CDRH Class 1 laser safety enclosure provides for safe operation without the need for an interlocked room or protective eyewear.



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