

# 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 functionality of the PLS6MW can be used to accomplish some tasks which are impossible if only one wavelength of laser source is used.

### **1.06 micron wavelength – Fiber Laser**

When configured with a 1.06 micron pre-aligned interchangeable fiber laser, the PLS6MW can mark most metals and some plastics.

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

Reconfigure the PLS6MW with a standard 10.6 micron pre-aligned interchangeable CO<sub>2</sub> laser to open up the full breadth of organic and inorganic material processing capabilities.

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

Reconfigure the PLS6MW with a specialized 9.3 micron pre-aligned interchangeable CO<sub>2</sub> laser for excellent results on certain highly-functional plastics.



## Laser Technology Benefits

- ▶ **Software Controlled** - The laser can be controlled by any software with a print function.
- ▶ **Multi-Material** - Process an endless number of materials available today and in the future.
- ▶ **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

### ▶ **ULR Laser Sources**

Universal's patented air-cooled free-space gas slab lasers produce an excellent quality beam with even power distribution and good near- and far-field characteristics, making them ideal for laser material processing.

### ▶ **Rapid Reconfiguration™ of Lasers**

Laser platforms with Rapid Reconfiguration can be reconfigured with new laser sources in seconds, without tools. This allows you to configure your laser system to suit the task at hand, increasing quality and throughput.

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

High Power Density Focusing Optics (HPDFO) allow the laser beam to be focused to a much smaller spot, making it possible to engrave smaller text and produce sharper images at tighter tolerances.

### ▶ **1-Touch Laser Photo™**

1-Touch Laser Photo is a proprietary software package that makes it quick and easy to produce photographic images on nearly any material.

### ▶ **Multi-wavelength technology**

The PLS6MW has been engineered to support CO<sub>2</sub> laser sources that produce 10.6µm and 9.3µm laser energy and a fiber laser source that produces 1.06µm laser energy.

# System Specifications

PLS6MW	
▶ <b>Work Surface Area<sup>1</sup></b>	<b>32 x 18 in</b> (813 x 457 mm)
▶ <b>Maximum Part Size<sup>2</sup></b>	<b>37 x 23 x 9 in</b> (940 x 584 x 229 mm)
▶ <b>Dimensions</b>	<b>44 x 39 x 36 in</b> (1118 x 991 x 914 mm)
▶ <b>Rotary Capacity</b>	Max Diameter 8 in (203 mm)
▶ <b>Motorized Z Axis Lifting Capacity</b>	<b>40 lbs</b> (18 kg)
▶ <b>Available Focus Lenses</b>	<b>2.0 in</b> (51 mm) <b>*standard</b> <b>4.0 in</b> (102 mm)
▶ <b>Laser Platform Interface Panel</b>	Keypad and LCD display shows current file name, laser power, engraving speed, PPI and run time
▶ <b>Operating System Compatibility</b>	Requires a dedicated PC to operate. Compatible with Windows XP/Vista/7 – 32/64 bit
▶ <b>PC Connection</b>	USB 2.0
▶ <b>Cabinet Style</b>	Floor-Standing
▶ <b>Optics Protection</b>	Air Assist Optional
▶ <b>Laser Options</b>	<b>1.06µm</b> (Fiber) -30 Watts <b>10.6µm</b> -10, 25, 30, 40, 50, 60, 75 Watts <b>9.3µm</b> -30 and 50 Watts
▶ <b>Approximate Weight</b>	345 lbs (156 kg)
▶ <b>Power Requirements</b>	110V/230V 5/10A
▶ <b>Exhaust Connection</b>	Two 4 in (102 mm) ports 500 CFM @ 6 in static pressure (850 m³/hr at 1.5 kPa)

## USA

7845 E. Paradise Lane  
Scottsdale, AZ 85260

+1 480-483-1214  
moreinfo@ulsinc.com

## Japan

The Yokohama Landmark Tower  
15th Fl. 2-2-1-1 Minato Mirai  
Nishi-ku Yokohama-shi  
Kanagawa-ken 220-8115 JAPAN

+81 45-224-2270  
japansales@ulsinc.com

## Europe

Lerchenfelder Gürtel 43  
1160 Vienna, Austria

+43 1-402-22-50  
eurosales@ulsinc.com

**UNIVERSAL<sup>®</sup>**  
**LASER SYSTEMS**

Learn more at [ulsinc.com](http://ulsinc.com)



CDRH Class 1 safety enclosure for CO2 laser<sup>3</sup>. Class 3R for red laser pointer.



<sup>1</sup> Work area varies by speeds and throughput

<sup>2</sup> Maximum part size defined as used with 1.5 lens

<sup>3</sup> CDRH Class 1 laser safety enclosure provides for safe operation without the need for an interlocked room or protective eyewear.

WARNING: UNIVERSAL LASER SYSTEMS PRODUCTS ARE NOT DESIGNED, TESTED, INTENDED OR AUTHORIZED FOR USE IN ANY MEDICAL APPLICATIONS, SURGICAL APPLICATIONS, MEDICAL DEVICE MANUFACTURING, OR ANY SIMILAR PROCEDURE OR PROCESS REQUIRING APPROVAL, TESTING, OR CERTIFICATION BY THE UNITED STATES FOOD AND DRUG ADMINISTRATION OR OTHER SIMILAR GOVERNMENTAL ENTITIES. FOR FURTHER INFORMATION REGARDING THIS WARNING CONTACT UNIVERSAL LASER SYSTEMS OR VISIT [WWW.ULSINC.COM](http://WWW.ULSINC.COM).

Manufactured and protected under one or more U.S. Patents: 5,661,746; 5,754,575; 5,867,517; 5,881,087; 5,894,493; 5,901,167; 5,982,803; 6,181,719; 6,313,433; 6,342,687; 6,423,925; 6,424,670; 6,983,001; 7,060,934; D517,474. Other U.S. and international patents pending.

©2011 Universal Laser Systems, Inc. All rights reserved. Universal Laser Systems logo and name are registered trademarks, and Rapid Reconfiguration, Laser Interface+, 1-Touch Laser Photo, SuperSpeed and High Power Density Focusing Optics (HPDFO) are trademarks of Universal Laser Systems, Inc. All other company and product names are trademarks or registered trademarks of their respective companies.

MC038-110411  
CPT REV 0112