

## PLS6MW - Multi-Wavelength Laser Platform™

32" x 18" Work Area



### Uniquely Universal Features

#### **Multi-wavelength technology**

This new Multi-wavelength platform is engineered to support our new laser sources which produce 1.06 micron fiber/YAG wavelength light and 9.3 micron CO2 wavelength light as well as our traditional CO2 lasers producing 10.6 micron wavelength light. These new laser sources take advantage of our patented Rapid Reconfiguration technology, making it simple and easy to switch between wavelengths without tools and without realignment. This flexibility allows the user to painlessly switch between fiber marking and CO2 marking and cutting applications, all in one machine.

#### **Rapid Reconfiguration™**

Every laser cartridge we produce is factory pre-aligned for easy integration into any of our laser platforms. This laser modularity delivers ultimate flexibility when configuring your laser system.

#### **Laser Interface+™**

Universal Laser Systems has developed the world's most advanced, powerful and flexible laser print driver. Laser Interface+ is a materials-based print driver that gives you the choice of automatic or manual control over power, speed, pulses per inch and other system settings.

### Platform Overview

The PLS6MW Multi-Wavelength Laser Platform uses multiple laser wavelengths to process the broadest possible spectrum of materials. The PLS6MW is built on Universal's patented Rapid Reconfiguration technology, so changing laser wavelength is as easy as changing the laser source and requires no tools, optics changes or software reconfiguration. This cost-effective, small-footprint, total material processing solution is ideal for fast-paced R&D and production environments and is only available from Universal Laser Systems.

#### **1.06 micron - Fiber**

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

#### **10.6 micron - CO2**

Materials: Plastics, textiles, wood and some metals. Reconfigure the PLS6MW with a standard 10.6 micron pre-aligned interchangeable CO2 laser to open up the full breadth of organic material processing capabilities.

#### **9.3 micron - CO2**

Materials: Some plastics. Reconfigure the PLS6MW with a specialized 9.3 micron pre-aligned interchangeable CO2 laser for excellent results on certain highly-functional plastics.

#### **Multi-Wavelength**

Materials: Some complex materials, including mirrored acrylic, adhesive-backed foils and some plastics. The multi-wavelength functionality of the PLS6MW can be used to accomplish some tasks which are impossible if only a single laser source is used.

### System Specifications

Work Surface Area	32 x 18 in (813 x 457mm)
Maximum Part Size	37 x 23 x 9 in (940 x 584 x 229mm)
Dimensions	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" MW (51 mm) recommended for most 10.6 and 9.3 $\mu$ m applications 4.0" MW (51 mm) recommended for most 10.6 and 9.3 $\mu$ m applications HPDFO MW
Laser Platform Interface Panel	Keypad and LCD display shows current file name, laser power, engraving speed, PPI and run time.
Operating System Compatibility	Requires a dedicated PC to operate. Compatible with Windows XP/Vista/7 32/64 bit
PC Connection	USB 2.0
Optics Protection	Air Assist Optional
Cabinet Style	Floor-Standing
1.06 $\mu$ m (Fiber)	30 Watts
10.6 $\mu$ m (CO2)	10, 25, 30, 40, 50, 60 and 75 Watts
9.3 $\mu$ m (CO2)	30 and 50 Watts
Approximate Weight	345 lbs (156 kg)
Power Requirements	110V/230V 5/10A
Exhaust Connection	Two 4 in (102 mm) ports 500 CFM @ 6 in static pressure (850 m3/hr at 1.5 kPa)

### System Features

- Multi-wave safety glass
- Cabinet Lighting
- Over-temp Alarm (for fire safety)
- Multiple Automatic Focusing Modes
- LCD display
- Multiple Language Support
- Permanently Sealed Bearings
- Proportional Pulse Control
- Stretch-Free Kevlar<sup>®</sup> Belts

### Laser Features

- Compatible with CO2 and fiber laser sources
- Laser Interface+ print driver
- Smart laser cartridge technology
- Custom material settings
- Auto focus
- Red dot pointer
- Optics protection
- Job time estimator
- RoHS compliant electronics

### Materials

	MARK	CUT	CUT*	Materials																																																			
				ABS Plastic	Acrylic	Corian <sup>®</sup>	Delrin <sup>®</sup>	Foam	Kevlar	Melamine	Nylon	PET	Photocurable Polymer	Plexiglass	Polycarbonate	Polypropylene	Polyester	Rubber	Silicon	Aluminum	Anodized Aluminum	Brass	Carbide	Chrome	Copper	Gold	Iron	Pewter	Silver	Stainless Steel	Steel	Titanium	Tungsten	Cardboard	Cork	Granite	Leather	Marble	Masonite <sup>®</sup>	Mat Board	Mother of Pearl	MDF	Paper	Particle Board	Stone	Wood	Alumamark	Laminated Plastics	Painted Brass	Brick	Ceramic	Tile	Fabric	Twill	Glass
<b>10.6 micron - CO2</b>	MARK	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
	CUT	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>1.06 micron - Fiber</b>	MARK	•		•								•					•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
	CUT*																•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
<b>9.3 micron - CO2</b>	MARK									•	•																																												
	CUT									•	•																																												
* Foil Cutting				<b>PLASTIC</b>						<b>METAL</b>						<b>NATURAL</b>						<b>SPECIALTY</b>	<b>CERAMIC</b>	<b>FABRIC</b>	<b>GLASS</b>																														