

PLS6MW Platform

Expanded Material Possibilities

For the maximum in material processing versatility, consider the PLS6MW Multi-Wavelength Laser System. 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 μm pre-aligned fiber laser.

10.6 micron wavelength – CO₂ 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 μm CO₂ laser.

9.3 micron wavelength – CO₂ Laser

For excellent results on certain plastics, the PLS6MW can be reconfigured with an interchangeable, pre-aligned 9.3 μm CO₂ laser.



Laser Technology Benefits

- ▶ **Software Controlled** - Any Windows[®]-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, CO₂ 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 wattages 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 CO₂ laser sources that produce 10.6 μm and 9.3 μm of laser energy at various power levels, and a fiber laser source that produces 1.06 μm of laser energy.

System Specifications

PLS6MW	
▶ Work Surface Area (W x H)	813 x 457 mm
▶ Maximum Part Size¹ (W x H x D)	940 x 584 x 216 mm
▶ Dimensions (W x H x D)	1118 x 991 x 914 mm
▶ Rotary Capacity	Max Diameter: 203 mm with 2.0 lens; 150 mm with 4.0 lens.
▶ Motorized Z-Axis Lifting Capacity	18 kg
▶ Available Focus Lenses	2.0 / 4.0 (Standard) / HPDFO™
▶ 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/7/8/10 – 32/64 bit.
▶ PC Connection	USB 2.0 or higher
▶ Cabinet Style²	Floor-Standing
▶ Laser Options	CO ₂ (10.6 μm): 10, 25, 30, 40, 50, 60, 75 W CO ₂ (9.3 μm): 30, 50 W Fiber (1.06 μm): 40, 50 W
▶ Approximate Weight	147 kg
▶ Power Requirements	110V/10A; 220V-240V/5A
▶ Exhaust Connection	Two 102 mm ports 850 m ³ /hr at 1.5 kPa.

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Distributed by:

CDRH Class 1 safety enclosure for CO₂ laser². Class 2 for red laser pointer.

¹ Maximum part size defined as used with 2.0 lens.

² 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.

ULS laser systems are protected under one or more of U.S. Patents: 5,051,558; 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; 7,415,051; 7,469,000; 7,715,454; 7,723,638; 7,947,919; 8,101,883; 8,294,062; 8,599,898; 8,603,217. Other U.S. and international patents pending. Made in the U.S.A.

The VLS Desktop system has been awarded U.S. Design Patent No. D517,474 for the unique design of its external cabinet, which also functions as a Class 1 laser safety enclosure.

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