XLS10MWH

Revolutionary Technology

The XLS10 MultiWave Hybrid™ is the first and only laser system to combine multiple laser wavelengths and power into a single coaxial beam. The XLS10 MultiWave Hybrid™ accommodates a fixed fiber laser source and two different CO2 laser wavelength sources that can be independently or simultaneously controlled for a virtually infinite number of wavelength and power combinations. As a result, the MultiWave Hybrid™ can process any material – even notoriously difficult multi-layered materials with conductive and non-conductive layers.

The unique laser materials processing capability provided by multiwave hybrid technology make the XLS10MHW the ideal system for materials R&D and for rapid prototyping.

Advanced Frictionless Motion System
Our rigid, frictionless, non-contact, hydrostatic bearings have self-cleaning properties and dramatically reduce the “noise” and chatter found in traditional mechanical load bearings. This system provides the smoothest, fastest and most precise movements over the processing area available on the market and dramatically improves throughput and accuracy, to a mechanical tolerance of ± 0.002”.

High Performance Features

- ULR Laser Sources
  ULS’s patented air-cooled free-space gas slab lasers produce an excellent quality beam with even power distribution and excellent near- and far-field characteristics, making them ideal for precise laser material processing.

- Modular Architecture
  Unique “building block” architecture easily reconfigures field-upgradable platforms, laser sources and focusing optics, offering unsurpassed flexibility as material needs change and businesses evolve.

- SuperSpeed™
  Produces two independently controlled beams increasing productivity. It is the ultimate solution for high-throughput raster marking applications.

- Rapid Reconfiguration of Lasers
  A full range of factory-aligned laser sources are designed to be field interchangeable in just minutes, with no special tools or training.

- Laser System Manager™
  The feature-rich Laser System Manager (LSM) software provides an easy-to-use, three step process, providing unsurpassed workflow optimization in any environment from R&D to production.

- Material Pass-Through
  This patented accessory provides the hardware and safety features necessary to convert the laser system into an open Class 4 laser device, allowing the user to process continuous rolls of material or objects that are too large to fit entirely on the work surface.
# System Specifications

| XLS10MWH |
|------------------|------------------|
| **Laser Material Processing Area (W x H)** | 40 x 24 in (1016 x 610 mm) |
| **Maximum Part Size**<sup>1</sup> (W x H x D) | Within laser platform enclosure: 61 x 33 x 12 in (1550 x 838 x 305 mm)  
Class 4 Pass-Through mode: ∞ x 33 x 12 in (∞ x 838 x 305 mm) |
| **Material Support** | Up to 80 lbs (36 kg) lift capacity |
| **Laser Configurations Supported** | Multiple: (1) fiber laser and up to (2) CO₂ lasers |
| **Laser Power Range Supported** | CO₂ (10.6 µm) 10 to 150 W;  
CO₂ (9.3 µm): 30, 50 W;  
Fiber (1.06 µm): 40, 50 W |
| **Laser Safety** | CO₂ and Fiber Laser: Class 1  
Diode Pointer: Class 2  
Pass-Through mode: Class 4 (<sup>2</sup> optional module required) |
| **Standard Focusing Lenses** | 2.0 / 3.0 |
| **Overall Dimension (W x H x D)** | 69.2 x 61 x 55.5 in (1758 x 1550 x 1410 mm) |
| **Weight** | Approximately 850 lbs (386 kg) excluding lasers |
| **Power Requirements** | Dual receptacle 230V AC, 30A, 50/60Hz |
| **Exhaust Requirements** | External Exhaust or Air Cleaner Required (<sup>3</sup> consult factory for specifications) |
| **Computer Requirements** | Dedicated PC with Windows 7 or higher, available USB 2.0 or 3.0 port |

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<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.

<sup>3</sup> CDRH Class 1 safety enclosure for CO₂ and Fiber lasers.<sup>1</sup> Class 2 for red laser pointer.

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; 5,901,167; 5,982,803; 6,181,719; 6,313,433; 6,342,687; 6,423,925; 6,424,670; 6,983,001; 7,060,934; 7,517,474; 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.

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