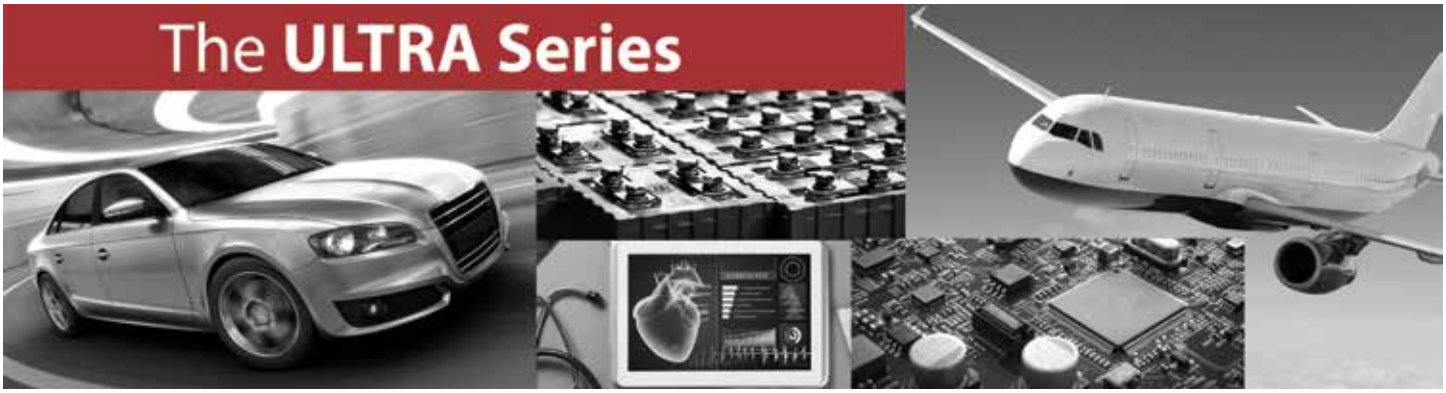


Advanced Laser Material Processing Solutions

The ULTRA product line offers tailored solutions for laser material processing for the widest possible range of materials. The ULTRA series is designed and ideally suited for precision material processing in manufacturing, research and development, academic research, and prototyping environments. With its unique modular architecture, the ULTRA series, provides customizable solutions that can be easily reconfigured. A wide array of options is available for enhancing performance, capability and safety to complete the perfect solution to meet present and future business needs.

ULTRA SERIES FEATURES:

- High performance servo-driven beam delivery system with dual loop encoding
- Precision focusing with autofocus touch probe
- Selectable laser power density
- Computer controlled gas assist with material collision detection
- Optics protection
- Camera registration
- 21 in (533 mm) touch screen control panel
- Automation interface
- All-in-one multi-function material support table
- ULTRA Laser System Manager
- Support for Class 4 conversion

ULTRA 9MW

ULTRA 9MWH

UNIVERSAL® LASER SYSTEMS

Platform Features

ULTRA 9MW:

- MultiWave processing with support for one interchangeable CO_2 or fiber laser source
- Manually adjustable three position Z-axis for materials with a thickness up to 2 in (51 mm)

ULTRA 9MWH:

- MultiWave Hybrid™ processing with support for two interchangeable CO_2 laser sources and a fiber laser
- Motorized long travel Z-axis for materials with a thickness up to 12 in (305 mm)
- Support for SuperSpeed™ *(optional)*

OPTIONS:

- 1X/13X Selectable Laser Power Density Optical Assembly
- Porous Carbon Tiles and Perforated Aluminum Tiles for Vacuum Table Configuration
- Elevating Aluminum Pins for Pin Table Configuration
- Vacuum Table Pump
- Lateral Gas Assist
- Fire Suppression
- Class 4 Conversion Module
- Traveling Exhaust
- UAC 4000 Air Cleaner
- SuperSpeed™ *(available for ULTRA 9MWH only)*
- Rotary Fixture *(available for ULTRA 9MWH only)*

21” (533 mm) touch screen control panel

UAC 4000 Air Cleaner

UNIVERSAL® LASER SYSTEMS

Specifications

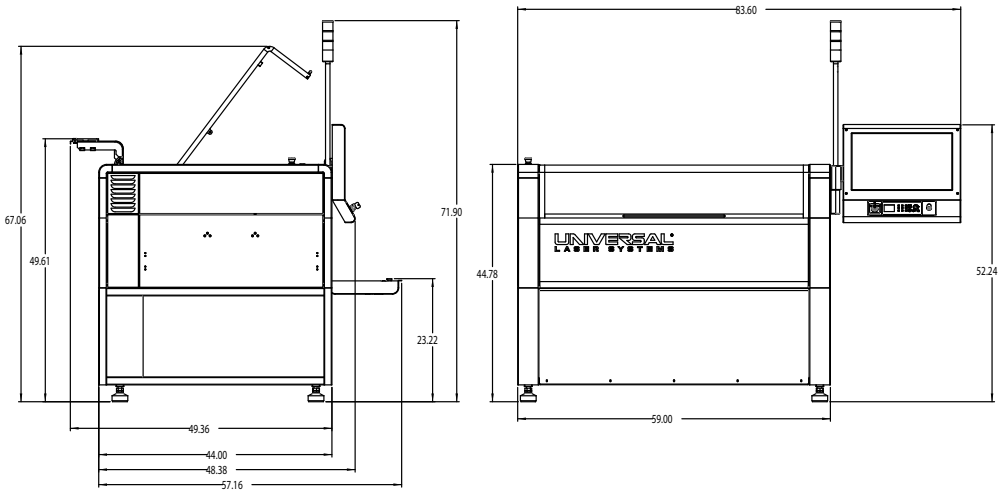
UNIVERSAL® LASER SYSTEMS

	ULTRA 9MW	ULTRA 9MWH
Materials Library	www.ulsinc.com/material/materials-library	
Processing Area	36 x 24 in (914 x 610 mm)	
Max Material Thickness	2 in (51 mm)	12 in (305 mm)
Carriage Travel	1.0 in (25.4 mm)	
Autofocus Range	1 in (25 mm)	12 in (305 mm)
Autofocus Accuracy	+/-.001 (25 µm)	
Beam Positioning Acceleration	> 5G	
Max Beam Positioning Speed	>150 in/sec (3810 mm/sec)	
Path Planning	Real Time Path Planning Optimization	
Minimum Addressable Beam Positioning	.00008 in (2 µm)	
Beam Delivery System Accuracy	.001 in (25 µm)[2, 3]	
Selectable Power Density Coefficients for CO_2 laser	3X/5X (Standard), 1X/13X (Optional)[4]	
Fiber Power Density Coefficient	52X[4]	
Number of Lasers Supported	1	3
Available Wavelengths	1.06, 9.3 and 10.6 µm	1.06, 9.3 and 10.6 µm
Max Laser Power	75 Watts CO_2 (9.3 or 10.6 µm) 50 Watts Fiber (1.06 µm)	150 Watts CO_2 (9.3 or 10.6 µm) 50 Watts Fiber (1.06 µm)
Laser Power Control	Encoder Based Programmable	
System Cooling	Air Cooled	
External Connectivity	Ethernet or WIFI Windows™/ macOS™/ Linux™/ Android™/ iOS™ (browser based)	
Controls	21 in (533 mm) Touchscreen Interface	
Software Interface	File Formats: PDF, DXF, G-code, Intelligent Materials Database, Design File Management, Design File Estimator, Design File Relocation and Duplication, Process Control Programming	
Overall Dimensions	Width: 65 in (1651 mm) *(control panel folded)* Width: 83.5 in (2121 mm) *(control panel extended)* Depth: 45 in (1143 mm), Height: 53 in (1346 mm)	
Weight	450 lbs (204 Kg)[5]	550 lbs (250 Kg)[5]
Power Requirements	110V/10A or 220-240V/5A	220-240V/16A
Exhaust Requirements	UAC 4000 Air Cleaner or External Exhaust Blower capable of 700 CFM @ 6 in Static Pressure (1190 m^3/hr at 1.5 kPa)	
Safety	Class 1 for Material Processing Lasers (1.06, 9.3, 10.6 µm) Contains Class 2 Alignment Laser (670 nm) Convertible to Class 4 Operation with Patented Optional Class 4 Conversion Module *(patent no. 7,723,638)*	

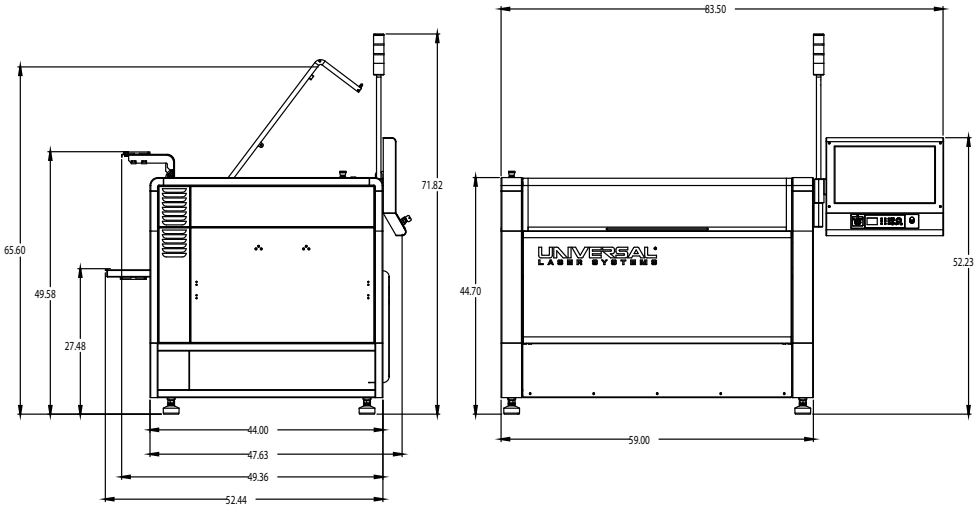
(1) Universal Laser Systems reserves the right to change these specifications at any time without notification (2) Accuracy is measured per foot under controlled conditions. Accuracy is affected by temperature.
(3) Accuracy of material processing results are affected by ambient temperature, material temperature, processing area temperature, humidity, laser processing settings, and material characteristics.
(4) Normalized power density (Watts/cm2) = Power Density Coefficient x 103 x Average Laser Power (Watts) where average laser power is power of lasers used to process materials and normalized power density is power of laser used to process materials divided by the area of the focal spot measured at 1/e2. (5) Weight approximate and will vary with laser selection

Mechanical Specifications

ULTRA 9MW



ULTRA 9MWH



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