

# ***INDUSTRIAL* SERIES**

HIGH PERFORMANCE, FLEXIBLE, LARGE FORMAT CO<sub>2</sub> LASER SYSTEMS  
WITH PASS-THROUGH CAPABILITY

THINK BIG

**UNIVERSAL**  
LASER SYSTEMS INC.

[WWW.ULSINC.COM](http://WWW.ULSINC.COM)



# INDUSTRIAL SERIES





## WHO CAN BENEFIT FROM A UNIVERSAL LASER SYSTEM?

Advertising Specialty Distributors  
Architects  
Awards and Engraving Professionals  
Decorative Home Products Distributors  
Educators (High School, Vocational School and College)  
Embroiderers  
Facility and Plant Managers  
Frame Shops  
Furniture Makers  
Fundraising Organizations  
Gift Shops  
Government Agencies  
Graphic Designers  
Hobbyists  
Jewelers  
Job Shops  
Landscape Designers  
Manufacturers  
Medical Instrument Manufacturers  
Military Base Personnel  
Model Makers  
Musical Instrument Manufacturers  
Package Designers  
Paper Craft Manufacturers  
Printing and Bindery Shops  
Scrapbookers  
Sign Makers  
Stone Carvers  
Woodworkers

*many more...*

## TABLE OF CONTENTS

PG 4	About Universal Laser Systems
PG 5	How to Make Money with ILS
PG 6	ILS System Synergy
PG 7	ILS Features - Exterior
PG 8	ILS Features - Interior
PG 9	ILS Features - Mechanical
PG 10	Additional Technology Benefits
PG 11	Our Promise to You
PG 12-13	Laser Interface+
PG 14	About ULS-Manufactured Lasers Lowest Laser Exchange Cost
PG 15	What Materials Can You Process? How Much Power Do You Need?
PG 16	ILS Platform and Power Options
PG 17	ILS Specifications
PG 18-21	Performance Enhancing Accessories
PG 22	ULS Patented Technology
PG 23	Find an ILS Dealer Near You Contact Information



2007 Harmon Rowing Champions

# THE MOST INTELLIGENT CHOICE IN LASER SYSTEMS

We build laser systems that last and support every machine we've made.

Universal Laser Systems, Inc. has been designing and building computer-controlled CO<sub>2</sub> laser systems since 1988 and manufacturing CO<sub>2</sub> lasers since 1997. We have built more laser cutting, marking and engraving systems than any other manufacturer in the industry. **No other company has more experience building CO<sub>2</sub> laser equipment than Universal!**

## RELIABILITY YOU CAN COUNT ON

Universal builds the most reliable lasers and laser systems in the industry. In fact, 99 percent of the laser systems that we have manufactured are still operational, including some of the very first systems we placed in the field. **We support every machine we've made since 1988.**

## YOU ARE A TOP PRIORITY

At Universal Laser Systems, Inc., taking care of our customers after the sale is a top priority. You can feel confident that we will be there for you when you need us. When you have questions, we're ready to provide answers. Service and support are available by telephone, fax and email. Parts for current models are in stock and available for express shipment.

## UNIVERSAL IS FOCUSED ON YOUR SUCCESS

We want to help you succeed in the market application you plan to pursue with your Universal Laser System. Whether you are a start-up company or an established business, we have the tools and experience necessary to help you maintain a competitive advantage. Our sales engineers can help you choose the system platform, laser(s) and productivity-enhancing accessories that are right for you. Our applications lab is ready to assist you with materials testing and answer any questions you may have about running a particular application.

## UNIVERSAL IS AN INDUSTRY PIONEER

Universal Laser Systems, Inc. is an industry pioneer and highest volume manufacturer of computer-controlled CO<sub>2</sub> laser systems used for laser marking, engraving and cutting operations. We have designed, manufactured and shipped thousands of CO<sub>2</sub> laser systems worldwide. Universal is also one of the world's largest suppliers of CO<sub>2</sub> lasers. In 1998 we introduced the industry's first complete line of air-cooled, RF-excited CO<sub>2</sub> lasers. Since then, we have consistently outpaced the market with new state-of-the-art technological advancements in CO<sub>2</sub> lasers and laser systems.

**Call us at 800-859-7033 for more information or to arrange a demonstration.**



# MAKE "BIG" MONEY WITH THE INDUSTRIAL LASER SERIES

This system has great built-in profit potential.

The Industrial Laser Series is a powerful and flexible tool that is ideal for demanding applications that require high speed cutting, deep engraving, precision scribing, intricate scoring and permanent marking. These capabilities are currently in great demand in the automotive, aerospace, electronics, packaging, manufacturing and printing industries.

The market for laser cutting, marking and engraving services is growing stronger every year. With an Industrial Laser Series, you can launch a new business, bring outsourced work in-house, or expand your current business into profitable new markets. It is an affordable investment that involves relatively low risk and can generate new profits and increased revenues for you.

Please see pages 2 and 3 for some of the many money-making applications you can run on an Industrial Laser Series.

Say "Yes" to jobs your competitors turn down due to size constraints!

The Industrial Laser Series' pass-through side doors can accommodate work pieces of virtually any length. This makes it possible to process oversize items such as snowboards, baseball bats, pool cues, cabinet doors and much more. The pass-through doors also allow for easy integration into a production line, providing opportunities for additional revenues.



# SYSTEM SYNERGY

By manufacturing all ILS components, Universal maintains the highest standard of quality.

Universal is the world's largest manufacturer of CO<sub>2</sub> lasers and computer-controlled CO<sub>2</sub> laser systems. We design and manufacture almost every component needed to produce our lasers and laser systems. This vertical integration helps us contain costs and gives us ultimate control over quality – important benefits that we pass on to you.

From laser cartridge to platform chassis to electronics to the software interface, the ILS is all Universal and built the way you want it!



# FEATURES OF THE INDUSTRIAL LASER SERIES

## EXTERIOR FEATURES

Available in two platform sizes to fit your needs:  
36"x24" and 48"x24".

- 1 Side doors open for Class 4 pass-through capability to accommodate oversize work pieces. Optional Class 4 Module allows for CDRH compliant switching between Class 1 and Class 4 modes (patent pending). Quick attach/disconnect design includes key switch, emissions indicator and safety time delay.

- 2 Tri-layer laminated safety glass window is heat- and scratch-resistant and provides excellent view of work table.

- 5 Optional LCD display (included with optional embedded computer) shows full color preview of jobs.



- 3 Wrap-around top door with gas charged lift struts provides easy access to the work table.

- 4 Front loading door provides easy access for inserting materials and work trays.

Modular design is completely field-upgradeable by the user with common hand tools.

### THE UNIVERSAL ADVANTAGE




EXCLUSIVE ULS TECHNOLOGY


Note: Class 4 option converts ILS into a Class 4 laser system with potential to expose user to invisible high power laser radiation. Special precautions required.


System shown with optional LCD display.

# FEATURES OF THE INDUSTRIAL LASER SERIES

## INTERIOR FEATURES

 **8** Optional dual laser capability provides up to 150 watts of power using two lasers.

 **7** Patented Rapid Reconfiguration™ and Quick Change Laser™ technology allow the user to easily upgrade ILS laser power in minutes without tools.

 **6** Smart laser cartridge technology provides auto-detection of power level, system diagnostics and variable laser cooling fan speed control.

Twin 75-watt lasers  
(150 watts total) shown.

**9** Factory aligned backplate is permanently aligned and never needs adjustment.

**10** Red dot pointer provides a visual means to find a location and to check work piece alignment and can be moved to any location on the work table via system keypad or cursor keys.



 INDICATES EXCLUSIVE ULS TECHNOLOGY

# FEATURES OF THE INDUSTRIAL LASER SERIES

## MECHANICAL FEATURES

- ✓ **11** Built-in exhaust flow detector warns if exhaust air flow is off when a job is running.
- ✓ **12** Adjustable exhaust louvers control air flow across work table, through traveling exhaust and downdraft cutting table.
- ✓ **13** Covered V-groove rail system never needs lubrication and shields belts, air hoses and bearings from dust and debris.
- 14** Covered stretch-free Kevlar belts provide accurate positioning at high speeds and ensure long life without the need for lubrication, maintenance or adjustments.
- ✓ **15** Carriage-mounted, non-contact, ultrasonic auto focus allows for quick and precise set-up. Users can set and run multiple focus settings in same job.
- ✓ **16** Interchangeable focusing optics are shielded against contaminants and stay cleaner for a longer period of time.
- ✓ **17** 2.0" focal length lens is standard; optional 3.0" and patented HPDFO™ lenses are available.
- 18** Industrial worktable is supported on four leadscrews. Motorized Z-axis can be manually adjusted or automatically moved to multiple focus positions from a single job file.
- 19** Precision motors provide excellent reliability and accuracy.



# FEATURES OF THE INDUSTRIAL LASER SERIES

## ADDITIONAL TECHNOLOGY BENEFITS

- ✔ **Laser Interface+™** materials-based print driver automatically calculates power and speed settings. You can toggle between automatic and manual settings.

Air assist ready systems include positive pressure optics protection.

- ✔ **Job control software** allows you to store, edit and re-run up to 2,000 job files without the need to open the graphic software program in which they were created.

- ✔ **Job time estimator** provides an estimate of raster and vector run times.

Motion system bearings are permanently sealed, self-adjusting and self-lubricating for years of trouble-free service life and excellent engraving quality.

Optional embedded computer allows for Ethernet connectivity and stand-alone operation.

- ✔ **Virtual artwork positioning** allows you to reposition and reprint a job anywhere on the work table without the need to open the graphic software file.

- ✔ **Over-temperature sensor with alarm** provides early detection and warning of material flaming and flare-ups. Includes a battery powered backup power supply in case the AC power is interrupted.

Field upgradeable firmware and software allows you to update functionality as new developments are made available.

Multiple language support is available for ease of operation.

Optional automation interface is available for turning on/off external devices.\*

- ✔ **Material job settings** can be saved, stored and loaded while a job is running.
- ✔ **Proportional pulse control** (patented) provides user-definable spacing between laser pulses for better cutting and engraving quality.
- ✔ **Custom .wav files** can be stored and loaded to signal application completion.
- ✔ **Four focusing modes** are available, including non-contact ultrasonic auto-focus, motorized manual focus, focusing from front LCD panel and focusing through the print driver. You can set and run multiple focus settings in same job.
- ✔ **USB 2.0 port** provides high-speed two-way plug-and-play data transmission.
- ✔ **Optional SuperSpeed™** technology (patented) provides up to 500 percent increase in productivity compared to single beam systems (requires two lasers). Available 2008.

✔ INDICATES EXCLUSIVE ULS TECHNOLOGY

\* Universal Laser Systems does not authorize using third party safety devices with this feature.



A close-up photograph of a laser system component, showing a black cylindrical part mounted on a red surface. The component is part of a larger machine with a grey frame.

## OUR PROMISE TO YOU

When you purchase an Industrial Laser Series system, you get world class customer service and support.

### DESIGNED FOR MAXIMUM UPTIME

The Industrial Laser Series is engineered to maximize your productivity.

We believe that making you wait for a service technician visit is a waste of your valuable time and money and have engineered the Industrial Laser Series to be the best designed and best supported laser systems in the world. The Industrial Laser Series is fully user-serviceable and can be easily maintained or upgraded with minimal downtime and expense. Most service operations can be performed with common hand tools and parts are designed so that they cannot be incorrectly fitted.

### PEACE OF MIND WARRANTY

Up to Five (5) Year Warranty (Platforms and CO<sub>2</sub> Lasers)

Each Industrial Laser Series laser system includes comprehensive warranty coverage (two years on system, one year on the laser cartridge), including the belts and optics. Warranty extensions can be added to any laser or platform for long term predictable cost and additional peace of mind.

### CUSTOMER SERVICE YOU CAN COUNT ON

When you purchase an Industrial Laser Series, you get world class unlimited customer service and support.

Our customer service experts are ready to assist you with any questions or concerns you may have about setup, maintenance, system operation and anything else relating to your Industrial Laser Series. We'll be happy to provide free materials testing for you as well as offer time-tested technical tips and tricks. Feel free to contact us by telephone, fax or email – we'll be there when you need us.

### FAST PARTS REPLACEMENT AND LASER EXCHANGE

Keeping your Industrial Laser Series system up and running to specifications is a prime concern for us.

Replacement parts for all Industrial Laser Series models are kept in stock and available for express shipping. ULS-manufactured CO<sub>2</sub> lasers are available for immediate delivery.

The lasers can be changed out in seconds without tools or the need for beam alignment and feature the lowest exchange cost in the industry.

# LASER INTERFACE+™

Laser Interface+ is by far the easiest, yet most comprehensive way to run a laser system.

The Industrial Laser Series features the Laser Interface+ materials-based print driver.

There is **NO NEED** to set power, speed, resolution, PPI, page size or focus points – Laser Interface+ automatically does it for you. And the Laser Interface+ settings are factory optimized to provide the very best cutting, engraving and marking quality. **No other company offers this feature!**

## Laser Interface+ Advantages:

- The world's most advanced, powerful and flexible print driver
- Choose between automatic or manual control over system settings
- Ensures consistently good results for users at every skill level
- Saves time and speeds job setup
- Provides precise control over PPI (pulses per inch), 3D contouring and rubber stamp shouldering
- Color-linked settings for combined raster/vector, raster only, vector only or skip modes which allows you to fine tune engraving and cutting parameters
- Built-in vector graphic scaling compensates for material melt-back and beam diameter on high-accuracy cutting jobs
- You can incorporate multiple power and speed settings within the same job to increase throughput and versatility
- Automatic image enhancements optimize the way that the laser beam fires to produce superior quality images at the highest possible speeds



YOUR OPTION:

## AUTOMATIC

Materials-based print driver automatically calculates system power and speed settings for you. Simply select the material you are processing, type in the thickness and print.

or

## MANUAL

You can switch from automatic to manual mode for “live” control over power, speed and other system settings at any time, even while a job is running.



## PRINT PREVIEW

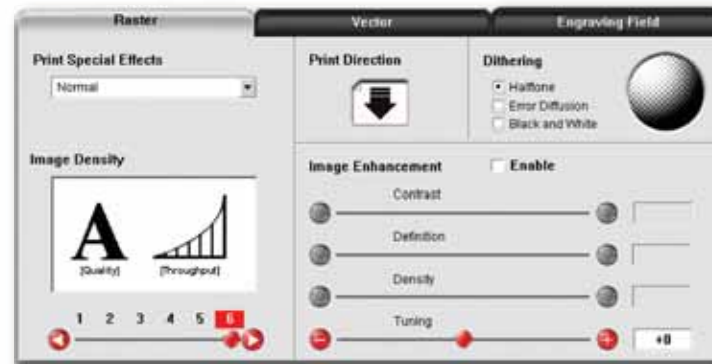
Print preview function ensures proper setup. You can store and re-run up to 2,000 jobs without the need to open the graphic software and change settings while a job is running.



## ENHANCEMENTS

You can fine-tune images, even at low print resolutions, to increase cutting and engraving quality.

You can also tune laser/driver interaction to produce finer quality on critical jobs.



## Software Compatibility

- Compatible with popular Windows® graphic software including CorelDRAW®, AutoCAD®, Adobe® Photoshop, Adobe Illustrator and Microsoft® Word
- Compatible with most industry-standard bar coding and labeling software
- Full-function Windows XP/Vista print driver is specifically designed to optimize Windows graphic software for laser cutting and engraving

# UNIVERSAL'S QUICK CHANGE CO<sub>2</sub> LASERS

Reconfigure your Universal Laser System to different power levels in seconds.

Once you have chosen an Industrial Laser Series platform, choose the laser power required for your specific application. Our patented Quick Change Lasers™, which utilize patented Rapid Reconfiguration™ technology, allow you to reconfigure your Universal laser system to different power levels in seconds, without the need for tools or optical alignment, to accommodate changing production requirements.

The benefits of Quick Change Lasers are obvious:

If you own a low-wattage laser you can quickly and easily exchange it for a high wattage model as your business expands.

Or you can add a second laser for a total of up to 150 watts of power – perfect for large shops requiring fast production rates!

**Universal laser cartridges come in 10, 25, 30, 35, 40, 45, 50, 55, 60 and 75 watts and can be combined for up to 150 watts.**

Universal manufactures the highest quality CO<sub>2</sub> lasers:

- Wide selection of power levels
- Air-cooled 10-150 watts
- Patented Permalign™ - no optical beam alignment required
- Patented cross-platform compatibility
- Patented Free-Space-Gas Slab laser design
- High reliability, excellent power stability
- Available warranty up to 5 years



Universal Offers the Lowest Laser Exchange Cost in the Industry



New and remanufactured laser cartridges are kept in stock. Minimize your downtime with ULS express shipping.



INDICATES EXCLUSIVE ULS TECHNOLOGY

## What Materials Can You Process?

Material	Engrave	Cut	Material	Engrave	Cut
ABS Plastic	•	•	Silk	•	•
Acrylic	•	•	Stone	•	
Avonite	•	•	Styrene	•	•
Brick	•		Tile	•	
Cardboard	•	•	Travertine	•	
Ceramic	•		Twill	•	•
Chipboard	•	•	Wood	•	•
Corian®	•	•			
Cork	•	•			
Delrin®	•	•			
Fabric	•	•			
Fiberglass	•				
Foam	•	•			
Fountainhead	•	•			
Glass	•				
Granite	•				
Kevlar	•	•			
Laminated Plastics	•	•			
Leather	•	•			
Marble	•				
Masonite®	•	•			
Mat Board	•	•			
Melamine	•	•			
Mother of Pearl	•	•			
MDF	•	•			
Mylar®	•	•			
Nylon	•	•			
Paper	•	•			
Particle Board	•	•			
Polycarbonate	•	•			
Polypropylene	•	•			
Polyester	•	•			
Pressboard	•	•			
Resin	•	•			
Rubber	•	•			
Silicone	•	•			

*Guideline: For hard woods and acrylic, 10-watts can cut approximately 1/8" deep; 25-watts can cut approximately 1/4" deep; 50-watts can cut approximately 1/2" deep; 100-watts can cut approximately 3/4" deep.*

### Metal Marking

Material	Mark without Metal Marking Compounds	Mark with Metal Marking Compounds
AlumaMark®	•	
Aluminum		•
Anodized Aluminum	•	
Brass		•
Carbide*	•	•
Cobalt*	•	•
Copper		•
Iron*	•	•
Nickel		•
Painted Brass	•	
Pewter*	•	•
Stainless Steel*	•	•
Steel*	•	•
Titanium*	•	•
Tungsten	•	•

*\* Can be marked directly (without the need for Metal Marking Compounds) using High Power Density Focusing Optics™ (HPDFO).*

## How Much Laser Power Do You Need?

The amount of laser power you choose should meet the majority of your production requirements. For example, a 10-watt laser is capable of cutting and engraving 1/8" wood, but only at very slow speeds. A high wattage laser can greatly increase your productivity. Also, some operations, such as metal marking, require a minimum of 30 watts of laser power. Our sales engineers can advise you on the amount of power that will best meet your current and future application needs. Please call 1-800-859-7033 for more information.

### 10 Watts

Low power for light surface engraving operations and thin materials cutting. Provides excellent control for sensitive low-power applications.

### 20-30 Watts

Low-medium power level for moderate speed cutting and engraving and high speed low power engraving. Not recommended for thick cutting operations.

### 40-60 Watts

Medium power level for deeper, high speed engraving and thick cutting operations at average speeds.

### 60-75 Watts

Medium-high power level that is ideal for high productivity engraving and cutting operations.

### 75-150 Watts

High power for heavy cutting and deep, high throughput engraving. In systems equipped with dual lasers, it is helpful to turn one laser off for precision engraving of materials requiring low power.

# INDUSTRIAL LASER SERIES PLATFORM AND POWER OPTIONS

Innovative pass-through side doors can accommodate oversize work pieces of virtually any length.

Universal's Industrial Laser Series is a line of high performance, large format, fully-customizable CO<sub>2</sub> laser systems that are available with an extended range of platform and power options. It is custom-manufactured to the highest specifications using ULS-manufactured and designed parts and lasers. The basic platform is modular in design and can be upgraded by the user to meet changing production needs. The Industrial Laser Series features opening side doors for convertible pass-through capability and is the world's only CO<sub>2</sub> laser system that can switch between CDRH Class 1 and CDRH Class 4\* (patent-pending).

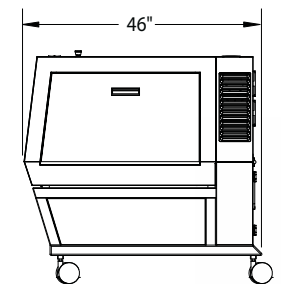
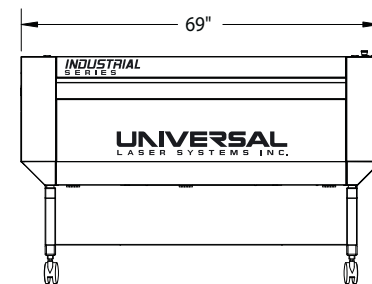
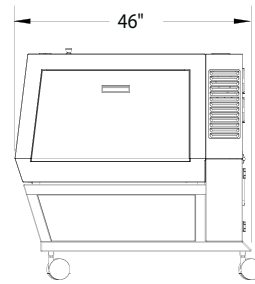
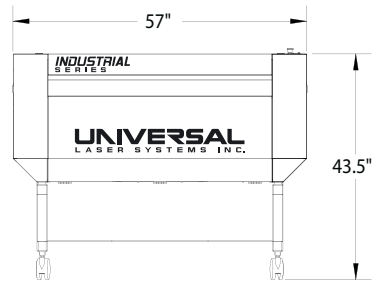
The Industrial Laser Series features the world's most advanced materials-based print driver: Laser Interface+™. This powerful feature allows you to choose between automatic material-based operation or manual control over power, speed, pulses per inch and other system settings. Additional standard ILS features include carriage mounted, non-contact auto-focus, interchangeable shielded focusing optics, covered stretch-free belts, self-adjusting and permanently-lubricated motion system bearings, red dot pointer and patented Rapid Reconfiguration™ and Quick Change Laser™ technology.

For more information on how the Industrial Laser Series can benefit you, contact a sales consultant at 1-800-859-7033.

\*See Class 4 laser module warnings.

System shown with optional LCD display.





## SPECIFICATIONS

	<b>ILS9.150D</b>	<b>ILS12.150D</b>
<b>Work Area</b>	36 x 24 inches (914 x 610 mm)	48 x 24 inches (1219 x 610 mm)
<b>Table Size</b>	40.5 x 30 inches (1029 x 762 mm)	52.5 x 30 inches (1334 x 762 mm)
<b>Maximum Part Size (WxHxD)</b>	40.5 x 30 x 12 inches (1029 x 762 x 305 mm)	52.5 x 30 x 12 inches (1334 x 762 x 305 mm)
<b>Maximum Clearance (WxHxD) for Pass-Through <sup>1</sup></b>	23.75 x 8 inches (603 x 203 mm)	23.75 x 8 inches (603 x 203 mm)
<b>Overall Dimensions (WxHxD)</b>	57 x 43.5 x 46 inches (1448 x 1105 x 1168 mm)	69 x 43.5 x 46 inches (1753 x 1105 x 1168 mm)
<b>Laser Power Options</b>	10, 25, 30, 35, 40, 45, 50, 55, 60, 75 (Select any two lasers for up to 150 watts combined power)	10, 25, 30, 35, 40, 45, 50, 55, 60, 75 (Select any two lasers for up to 150 watts combined power)
<b>Approximate Weight</b>	400 lbs. (181 kg)	430 lbs. (215 kg)
<b>User Interface</b>	Keypad and LCD	Keypad and LCD
<b>Printer Control / Connection <sup>2</sup></b>	Windows XP/ Vista; USB 2.0 high speed connection	Windows XP/ Vista; USB 2.0 high speed connection
<b>Power Requirements</b>	220V/16A; 50/60Hz	220V/16A; 50/60Hz
<b>Exhaust Connection</b>	External exhaust required: 2 ports (4 inches in diameter) 700 CFM @ 6 inches static pressure (minimum requirement)	External exhaust required: 2 ports (4 inches in diameter) 1,000 CFM @ 6 inches static pressure (minimum requirement)

*Specifications subject to change.*

<sup>1</sup> Maximum pass-through is up to 24 inches (610 mm) for materials less than 0.5 inches (12.7 mm) thick using 2.0 or HPDFO lens.

<sup>2</sup> Requires dedicated PC.

# ACCESSORIES

Custom-configuring capability is a ULS core philosophy.

The Industrial Laser Series **can grow with you now and in the future to meet your changing production needs.**

Being able to custom-configure your laser system is a ULS core philosophy. We believe you should purchase only those options you actually need. Should your needs change, you can easily expand the capabilities of your ILS laser system at any time with our optional accessories.

For example, suppose you start out with an ILS9.150D equipped with a 30-watt laser. As your production needs increase, you can upgrade to a higher-power laser for faster throughput. Then when more demanding jobs start coming in, you can mount a second ULS laser for faster cutting and deeper engraving. You can convert your ILS from a light-duty to heavy-duty system in the field quickly and easily. The Industrial Laser Series offers unmatched upgradeability.

Note: All ILS system options are designed for easy field installation by the user with common hand tools.



## ✓ Pass-Through Class 4 Module

Optional Class 4 Module allows for CDRH compliant conversion between Class 1 to Class 4 mode (patent pending) to accommodate oversize work pieces. Quick attach/disconnect design includes key switch, emissions indicator and safety time delay. This option converts an ILS into a properly configured Class 4 laser system. Class 4 operation has the potential to expose the user to invisible high power laser radiation. Special precautions must be taken when operating a Class 4 laser system. *(Additional information available upon request.)*



## Downdraft Honeycomb Cutting Table

Downdraft Honeycomb Cutting Table provides a cutting surface with minimal back reflection and light vacuum hold-down; removes smoke from below cut, reducing potential of damage to bottom surface of material; and improves cutting quality. A sensor detects the presence of a cutting table when it is installed and automatically adjusts the Z-axis to place materials at the proper focus. Attached rulers assist in accurate part positioning. The cutting table greatly reduces need to clean the work surface and convenient drawers make clean-up easy.

✓ INDICATES EXCLUSIVE ULS TECHNOLOGY



✓ **High Power Density Focusing Optics (HPDFO)<sup>™</sup>**  
Exclusive, patented ULS optics increases the power density of the laser to achieve dramatically improved resolution for applications requiring extremely fine detail. HPDFO makes it possible to engrave smaller text, produce higher resolution graphics and allows direct marking on some bare metals, including iron, stainless steel, chrome steel and titanium, without the need for metal marking compounds.



### **Back Sweep for Air Assist**

The Back Sweep attachment directs high pressure air toward the exhaust duct to suppress flaming and direct smoke, fumes and debris away from the material being processed. This is particularly useful for rubber or other materials that produce a lot of dust and debris during the engraving process. Recommended for use with the Computer-Controlled Compressed Air Unit.



### **Cone for Air Assist**

The Air Assist Cone directs high pressure air onto the material being processed to suppress flaming, thus improving cutting or engraving quality. This is particularly useful for cutting wood or other materials. Recommended for use with the Computer-Controlled Compressed Air Unit.

### **Automation Intertace Option\***

Automation interface option integrates a module with inputs and outputs that can trigger events on ILS systems from external devices. Typical automation command events include job start/stop/pause, go to next/previous job and auto-focus. The inputs and outputs accept signals from 3.5 to 24 volts and are PNP or NPN selectable.

### ✓ **SuperSpeed<sup>™</sup>**

Patented SuperSpeed technology redefines productivity by permitting simultaneous dual line engraving. Jobs can be run many times faster than a single beam laser system. The profit potential for high volume SuperSpeed jobs is outstanding. (Available 2008.)

### ✓ **Traveling Exhaust**

All-new Traveling Exhaust design is attached to the motion arm and captures dust, fumes and debris before they can contaminate the work area. Highly efficient design lowers noise levels and energy costs.

### ✓ **Computer-Controlled Air Assist with Optics Protection**

Computer-controlled design allows for 25-, 50-, 75- or 100 percent adjustable airflow plus the addition of another gas. Provides the ultimate protection of optics and control of air/gas to improve cutting/engraving quality of special materials. Choose between standard cone or optional back sweep for maximum flexibility.

### **Computer-Controlled Compressed Air Unit**

Supplies clean, dry, oil-free compressed air. Activated only when jobs are in process. Desiccant or refrigerated air dryer kit is required. Recommended for use with Computer-Controlled Air Assist.

\*Universal Laser Systems does not authorize using third party safety devices with this feature.

## ACCESSORIES (Continued)

Custom-configuring capability is a ULS core philosophy.



### Rotary Fixture Attachment

The Rotary Fixture attachment can be **installed or removed without the need to restart the system** and can accommodate most cylindrical items **up to 10 inches in diameter**. Holds part on both ends, **accommodates taper**, can be **run in high speed raster mode** with lighter objects and also runs in vector mode. **Rotates beyond 360 degrees** in order to ensure full wrap-around engraving. Wine bottles, coffee mugs and geometrically-shaped items can be rotated. A **sensor detects the rotary attachment** when installed and automatically makes all of the adjustments necessary for rotary marking and engraving.

### Lens Kits

**2.0 and 3.0 lens kits are available.** The lens can be **changed out in less than ten seconds without tools.**

- 2.0 lens **provides a 0.005 spot size** at a focus distance of 2.0 inches
- An excellent **all-around choice** for most common cutting and engraving operations
- Small beam spot size allows **for high resolution engraving and fast cutting** of thin substrates
- 3.0 lens provides a **0.009 spot size** at a focus distance of 3.0 inches
- Provides good cutting and engraving results while allowing you to **physically focus further away from the material** being processed
- **Increased clearance** between the lens and material reduces the possibility of the lens becoming contaminated by debris



### Embedded Computer with Color Display

Embedded computer option eliminates the need for an external computer, allowing for true stand-alone operation in production environments. Allows ethernet connectivity. The embedded computer option includes a 7" color LCD display which allows the operator to preview and select stored jobs and change job settings while a job is running. This option is ideal for high volume production environments where the task of creating artwork is separate from operating the machine. (Available 2008.)

To learn more about Universal's production-enhancing accessories, call 1-800-859-7033.

# UNIVERSAL'S PATENTED TECHNOLOGY

We have made a long-term commitment to customer satisfaction through product innovation.

Do you want to increase your profitability and productivity? Put Universal's patented technology to work for you.

For nearly two decades, Universal has maintained an industry leadership position by providing patented technologies to customers around the world. We have made a long-term commitment to customer satisfaction through product innovation.

**Our goal is simple: we want to make our products more useful for you.**

Our many patents enable us to provide **faster** raster and vector speeds, **improved** cutting and engraving quality, **better long-term system reliability** and **lower operating and servicing costs** for you.

## RoHS Compliant

In order to help foster and maintain a cleaner environment, Universal's Industrial Laser Series is manufactured in compliance with the Restriction of Hazardous Substances (RoHS) Directive. RoHS restricts the use of certain hazardous materials in the manufacture of various types of electronic and electrical equipment.

## Patented Technology

Universal's Professional Series 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; D517,474. Other U.S. and international patents pending.

**For additional details on Universal's patented technology, call 1-800-859-7033.**



# SUPERIOR REPRESENTATIVE NETWORK

- Universal Laser Systems' sales representatives are experts in computer-controlled CO<sub>2</sub> laser cutting, engraving and marking.
- Customer sales, service, applications and training support are available.
- Service agreements are available for long term predictable cost and peace of mind.
- Support is available by phone, fax and email. Factory on-site and local assistance are also available.



## **Universal Laser Systems, Inc.**

North America • South America •  
Asia • Oceania • India  
7845 E. Paradise Lane  
Scottsdale, Arizona 85260 USA  
Toll Free: 1-800-859-7033  
Phone: +1 480-483-1214  
Fax: +1 480-315-3630  
Email: sales@ulsinc.com

## **Universal Laser Systems GmbH**

Europe • Middle East • Africa  
Lerchenfelder Guertel 43  
A-1160 Vienna, Austria  
Phone: +43 1 402 22 50  
Fax: +43 1 402 22 50 10  
Email: eurosales@ulsinc.com

## **Universal Laser Systems Co., Ltd.**

Japan  
The Yokohama Landmark Tower, 15th Fl.  
2-2-1-1 Minato Mirai, Nishi-ku  
Yokohama-shi, Kanagawa-ken, 220-8115 Japan  
Phone: +81 45-224-2270  
Fax: +81 45-224-2279  
Email: japansales@ulsinc.com

**UNIVERSAL**  
LASER SYSTEMS INC.

WWW.ULSINC.COM



The Industrial Laser Series is manufactured at Universal Laser Systems, Inc. USA headquarters. Located in Scottsdale, Arizona, Universal's state-of-the-art manufacturing facility is the most advanced CO<sub>2</sub> laser system engineering and production facility in North America.

7845 E. Paradise Lane  
Scottsdale, AZ 85260

Telephone: 480.483.1214  
Toll-Free: 800.859.7033  
Fax: 480.315.3630  
Email: [sales@ulsinc.com](mailto:sales@ulsinc.com)

**UNIVERSAL**  
LASER SYSTEMS INC.

[WWW.ULSINC.COM](http://WWW.ULSINC.COM)