

*Versa* **LASER**<sup>TM</sup>  
Multi-Material Laser Cutting, Marking and Engraving Computer Peripheral

**UNIVERSAL**  
LASER SYSTEMS INC.



### **Welcome to the New VersaLaser®**

The world's most popular desktop laser cutting and engraving system just got better! The original VersaLaser was the most successful and technologically-innovative compact CO<sub>2</sub> laser engraving, cutting and marking system ever brought to market. The new VersaLaser adds several exciting new features that take the industry's best-selling desktop cutting and engraving system to the next level.

For example, VersaLaser now features a next-generation materials-based print driver that automatically controls power, speed, pulses per inch and other system settings. There is also a relocatable origin for custom setups; a job time estimator; a heat- and scratch-resistant laminated safety glass window; a work table access door with gas lift struts; an improved graphical user interface and much more.

At a cost of about one dollar per day, VersaLaser offers the lowest cost of ownership in the industry. Motors are maintenance-free and belts and bearings can be replaced easily and inexpensively in the field with simple hand tools. Patented High Power Density Focusing Optics (HPDFO)<sup>™</sup>

increases the power density of the laser to allow for direct marking on iron, stainless steel, chrome and titanium without the need for metal marking compounds. Universal-manufactured CO<sub>2</sub> lasers provide superior beam quality, reliable long life and the lowest recharge cost in the industry.

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

No other company has more experience building computer-controlled CO<sub>2</sub> laser systems than Universal. We are an industry pioneer and the highest volume manufacturer of CO<sub>2</sub> laser systems used for laser marking, engraving and cutting operations. Since 1988, we have designed, manufactured and shipped thousands of systems to customers in more than 100 countries around the world. We are also one of the world's largest suppliers of CO<sub>2</sub> lasers and the only manufacturer that builds both CO<sub>2</sub> lasers and CO<sub>2</sub> laser systems. Universal has operating offices in the USA, Europe and Asia to support a global network of distributors that services thousands of customers in hundreds of different industries.

## Features

- Top door provides easy access to the work table.
- The heavy duty worktable is supported on triple leadscrews. Motorized Z-axis can be manually adjusted or can be automatically moved to multiple focus positions from a single job file.
- Shielded, interchangeable focusing optics stay cleaner for a longer period of time.
- ULS V-groove rail system utilizes self-adjusting bearings that never need lubrication.
- VersaLaser features a fully enclosed CDRH Class 1 safety enclosure for safe operation.
- Scratch-resistant glass window provides excellent visibility of the work area.
- Auto-detection of the rotary fixture, cutting table and air compressor speed set-up and productivity.
- Red dot pointer is standard and can be used to find a location and to check work piece alignment.
- A 2.0" (50mm) focal length lens is standard; optional lenses are available.
- Field upgradeable firmware and software extends the useful life of the system.
- VersaLaser can set and run multiple focus settings in same job.



# Revolutionary Materials-Based Print Driver



Print preview function allows users to preview a job on-screen before it is actually run to ensure proper set-up.

VersaLaser features the world's most advanced, powerful and flexible print driver. VersaLaser's materials-based print driver automatically calculates the power and speed settings for a wide range of laser-friendly materials to ensure consistently good results for experienced and novice users alike.

The materials driver features an intuitive and highly functional graphical user interface (GUI) with diagnostics tab that provides information about system status, installed accessories, laser power and pop-up warnings.

## Software Compatibility

Unlike most laser manufacturers who force their customers into using proprietary programs, VersaLaser is fully compatible with most popular Windows® graphic software including CorelDRAW®, AutoCAD®, Adobe Photoshop®, Microsoft® Word, and most bar coding and labeling software.

VersaLaser features a full-function Windows® XP/Vista print driver specifically designed to optimize your Windows® graphic software for laser cutting, marking and engraving applications.

# Applications

VersaLaser is ideal for non-contact high speed cutting, deep engraving, precision scribing, intricate scoring and permanent marking. Laser cutting, marking and engraving capabilities are currently in great demand in the automotive, aerospace, electrical and electronics, packaging and printing industries.



Etching on cell phone



Photo etching on metal



Engraving anodized aluminum tags



Cutting and scoring of mat board



Cutting multiple layer fabric appliques

Cutting and engraving of wood inlays



# Specifications

## VersaLaser VLS2.30

Work Area	16" x 12" (406mm x 305mm)
Table	18.75" x 14.5" (476mm x 368mm)
Max. Part Size	18.75"W x 14.5"H x 4"D (476mm x 368mm x 102mm)
Overall Dimensions	26"W x 14"H x 25"D (640mm x 355mm x 635mm)
Laser Options	10, 25 or 30-watt
Weight	85-92 lbs. (39kg - 42kg)
User Interface	Five button keypad
Printer Control/Connection*	USB 2.0 / Windows® XP/Vista
Power Requirements	600 Watts – 110/220V – 5A
Exhaust Hookup	One 3" external port or optional Computer Controlled Air Cleaner/Cart

\* Requires dedicated PC

## VersaLaser VLS3.50

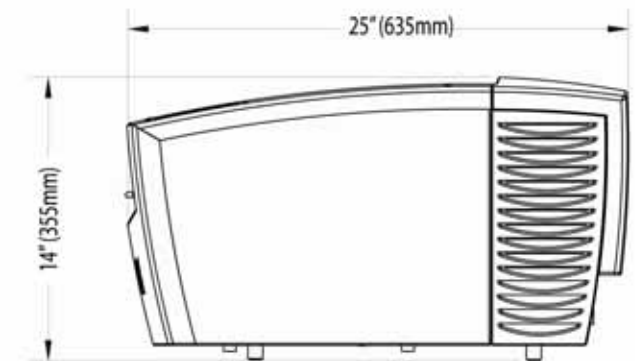
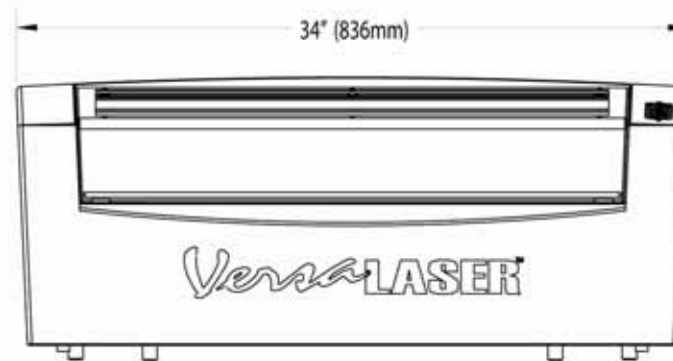
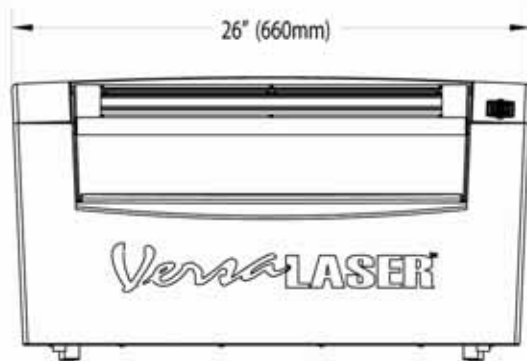
Work Area	24" x 12" (609mm x 305mm)
Table	26.75" x 14.5" (679mm x 368mm)
Max. Part Size	26.75"W x 14.5"H x 4"D (679mm x 368mm x 102mm)
Overall Dimensions	34"W x 14"H x 25"D (863mm x 355mm x 635mm)
Laser Options	10, 25, 30, 40, or 50-watt
Weight	110-123 lbs. (50kg - 56kg)
User Interface	Five button keypad
Printer Control/Connection*	USB 2.0 / Windows® XP/Vista
Power Requirements	1200 Watts - 110/220V - 10A
Exhaust Hookup	One 3" external port or optional Computer Controlled Air Cleaner/Cart

## VersaLaser System Synergy

The entire VersaLaser laser system – including the CO<sub>2</sub> laser cartridge, platform chassis, electronics and software interface – is designed and manufactured by Universal Laser Systems. Every aspect of the system has been tuned to work together to provide the best possible cutting, marking and engraving quality and years of profitable, reliable and productive service.

## Two VersaLaser Models Are Available

VersaLaser is available in two upgradeable models utilizing ULS's unique, patented laser technology.



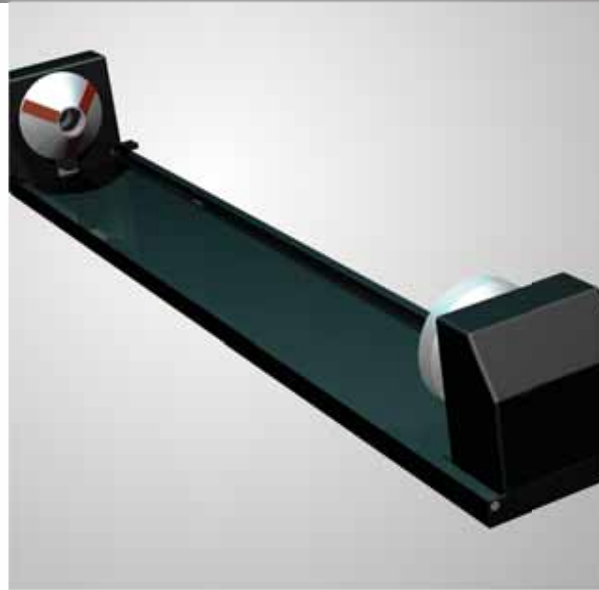
# Production-Enhancing Accessories

## Air Dryer

Removes moisture from air assist which can damage laser optics. Allows air assist to operate even in humid environments. Suggested for use with the Compressed Air Unit.

## Computer-Controlled Compressed Air Unit

Supplies dry, oil-free compressed air to enable air assisted cutting and engraving and extends the life of the laser system optics. The compressed air unit is controlled via a USB port and turns on automatically when a job is in process. The compressor pump is noise-insulated for quiet operation.



## Rotary Fixture Attachment

The rotary attachment accommodates most cylindrical items and allows very fast engraving, vector marking or cutting. It can be installed or removed without the need to restart the system. Holds part on both ends and can be run in high speed raster mode with lighter objects and also runs in vector mode. Rotates beyond 360 degrees in order to assure full wrap-around engraving. Loading and unloading is quick and easy. A sensor detects the rotary attachment when installed and automatically makes all of the adjustments necessary for rotary marking and engraving.

## Air Assist Back Sweep

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

## Integrated Cart

Moveable floor standing unit combines stylish good looks with durable construction for years of dependable service. Two large drawers provide generous storage: caster wheels offer moving convenience.

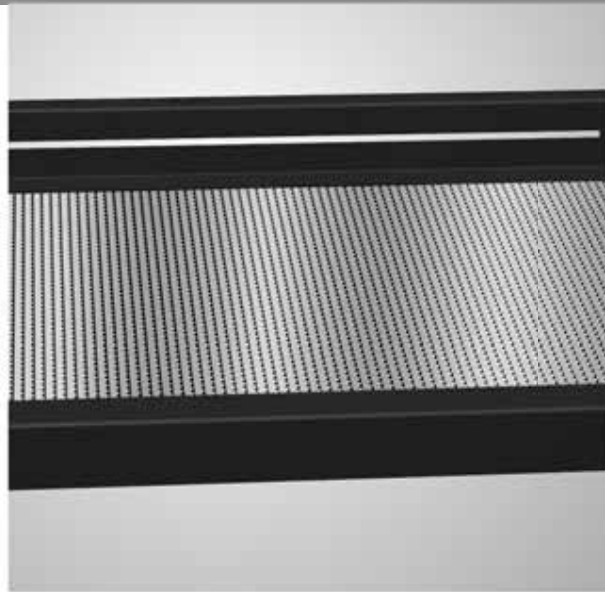






#### **High Power Density Focusing Optics (HPDFO)™**

Exclusive, patented optics increase the power density of the laser to achieve dramatically improved resolution for applications requiring extremely fine details. HPDFO makes it possible to engrave smaller text, produce higher resolution graphics and allows direct marking on some uncoated metals, including iron, stainless steel, chrome steel and titanium, without the need for metal marking compounds.



#### **Downdraft Honeycomb Cutting Table**

Provides a low contact area 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 cutting table when it's installed and automatically adjusts the Z-axis to place materials at the proper focus. Greatly reduces need to clean work table.

#### **Computer Controlled Air Cleaner/Cart**

Air filtration device removes smoke and fumes from VersaLaser when external venting is not possible. Cart is controlled through a USB port and automatically powers on/off when a job is in process. Moveable floor standing unit offers the same sleek design and durable construction as the Integrated Cart minus the storage space.



#### **Air Assist Cone**

The Air Assist Cone directs a jet of compressed air onto the material being processed to suppress flaming, thus improving cutting and engraving quality. Suggested for use with the Computer-Controlled Compressed Air Unit.



# Warranty

## Warranty

VersaLaser ships with a comprehensive one-year limited warranty. Warranty extensions are available.

## RoHS Compliant

VersaLaser is manufactured in compliance with the Restriction of Hazardous Substances (RoHS) Directive and the Waste Electrical and Electronic Equipment Directive (WEEE).

## Patented Technology

Universal's 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. Other U.S. and international patents pending.

VersaLaser 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.

## Laser Material Starter Kits

To better help you get started with your new laser engraving businesses, we have introduced an engraving Material Starter Kit. The kit contains a wide variety of materials that are tested and are compatible with laser processing. Call for more information.

# Service and Support

## Superior Engineering Helps Save Time and Money

VersaLaser's superior engineering saves you time and money. Bearings and belts can be replaced easily and inexpensively by the user using simple hand tools. Shielded positive-pressure optics keep the lens and mirror assemblies clean for a longer period of time. Universal-manufactured CO<sub>2</sub> lasers provide reliable long life and the lowest recharge cost in the industry. With operating costs of about one dollar per day, VersaLaser offers the lowest cost of ownership in the industry.

## VersaLaser Support

Universal's superior engineering and innovative technology result in systems that provide years of profitable, reliable and productive service. If you have a question about VersaLaser, or require service, our technical support department is ready to assist you by telephone, fax and email. Replacement parts are kept in stock and are available for express shipment. On-site service is also available.

## ULS Customer Support

Hours of Operation: 7 a.m. – 5 p.m. Arizona Time  
Telephone: 480-609-0297  
Fax: 480-609-1203  
Email: support@ulsinc.com  
Web: www.ulsinc.com



15 Claims, 3 Drawing Sheets

# 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. Local assistance is also available.



## Universal Laser Systems, Inc. - Headquarters

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For a local rep, contact the nearest ULS office.

Material	Engrave	Cut	Material	Engrave	Cut
ABS Plastic	•	•	Silicone	•	•
Acrylic	•	•	Silk	•	•
Avonite	•	•	Stone	•	
Brick	•		Styrene	•	•
Cardboard	•	•	Tile	•	
Ceramic	•		Travertine	•	
Chipboard	•	•	Twill	•	•
Corian®	•	•	Wood	•	•
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	•	•			

*Guideline: 10 watts can cut approximately 1/8"; 25 watts can cut approximately 1/4"; 50 watts can cut approximately 1/2"; 100 watts can cut approximately 3/4".*

## 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).

**WARNING! Laser system must be constantly monitored during use. Exposure to the laser beam may cause ignition of combustible materials which can cause severe damage. Review operations manual for proper procedures prior to use.**

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[www.versalaser.com](http://www.versalaser.com)