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#### OUR PRODUCTS

A dedicated supplier of high end CAD/CAM equipment offering superior support and a wealth of knowledge and expertise in the products we supply. As a company we are committed to providing nothing but high quality products that offer excellent precision, performance and reliability. A combined solution that supports the needs of our educational and industrial clients.

We are continuously looking at innovative technology and as new products develop we assess them on an individual basis and if they suit our customers and their potential requirements then we will offer to supply them. If there is a particular piece of equipment you are looking for then please let us know and we will investigate it for you.









Supplying the complete range of Universal Laser cutting and engraving systems

#### The global leader in laser cutting technology

Our laser systems deliver everything you would expect from a high quality product, including excellent precision, performance and reliability but they also offer several exclusive Uniquely Universal features. These patented, proven laser processing innovations were designed to make laser processing more effective, productive and profitable...and you can only get them from Universal Laser Systems!

With a product line boasting 12 different systems we are sure to have a laser that best suits your requirements and or budget. The 2 important factors to consider when looking at which system suits your requirements are:

**What bed size do I need?** It's extremely important that you get the right bed size when choosing a laser. If you know that you are going to be working to a maximum part size then get a system that fits within this criteria. With the versatility of our systems it's easy to outgrow the laser if you don't get a bed size that's big enough for your immediate and future requirements.

**What power do I need?** Our recommendation is that a power of between 40 & 60 watts is suitable for almost all applications. If you are sold a system that needs upgrading within the first 6 months then you haven't got the right laser!

Upon initial enquiry to us one of our team will directly discuss your requirements with you and we can then determine the best configuration for your intended applications. When investing in equipment such as lasers it is imperative that you get the exact machine you want rather than having to opt for cheap inferior alternatives so before you make your final decision make sure that you have researched properly and have all of the details you need to make an informed choice.





Working area: 610x457mm (24x18") Maximum laser power: 75 watts

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INVERSA

Working area: 610x305mm (24x12") Maximum laser power: 75 watts



VLS3.60DT

Working area: 610x305mm (24x12") Maximum laser power: 60 watts







Working area: 810x457mm (32x18") Maximum laser power: 75 watts



Working area: 610x457mm (24x18") Maximum laser power: 75 watts



Working area: 810x457mm (32x18") Maximum laser power: 75 watts



Working area: 1219x610mm (48x24") Maximum laser power: 150 watts



Working area: 914x610mm (36x24") Maximum laser power: 150 watts



The VLS2.30DT is a compact and economical platform designed to be an entry level laser machine for starting your laser material processing business. The VLS2.30DT is well suited to prototype development and on-demand production and also makes a capable second machine to handle production overflow. The VLS2.30DT offers a material processing envelope of 16"x12"x4", 768 in<sup>3</sup> (406x305x102mm, 12, 585 cm<sup>3</sup>) and can be equipped with one of 2 laser cartridges, 10 or 30 watts.

The VLS2.30DT comes standard with Laser Interface+™ and a number of additional options are available to enhance your laser processing capabilities. All Universal laser platforms use interchangeable components, giving you the ability to tailor your system to fit your needs.

## VLS2.30DT



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	Work area	<b>406x305mm</b> (16x12")			
	Table size	476x370mm			
	Rotary travel	360 degrees - max 4" diam			
	Max cut depth (acrylic)	8mm			
	Max cut depth (wood)	6-8mm			
	Print driver	Laser Interface+			
	Connection	USB 2.0 high-speed compliant			
	PC control	Requires dedicated PC			
Z	Laser power options	10 or 30 watts			
\$ATIC	Power	1200 watts - 110/220V - 10A Single phase			
PECIFICATION	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc			
8 6 6	Exhaust specification	1 x 3" external port			

#### **FEATURES**

- Industrial quality American built C02 laser cutting & engraving machines
- 10 or 30 watts of laser power
- · Laser Interface+ print driver
- Set and run multiple focus settings in one job
- · Red dot pointer
- Print preview function
- · Field upgradeable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- Field upgradeable firmware and software extends the useful life of the system
- Fully enclosed CDRH Class 1 safety enclosure for safe operation
- Shielded, interchangeable focusing optics stay cleaner for a longer period of time



The desktop VLS3.60DT is small enough to fit on a work surface yet powerful enough to meet the requirements of on-demand production. Used frequently for educational purposes, the VLS3.60DT is also a great choice for starting your laser business. Offering a material processing envelope of 24"x12"x4", 1,152 in<sup>3</sup> (610x305x102 mm, 18,878 cm<sup>3</sup>), the VLS3.60DT can be equipped with one of five ULS laser cartridges ranging in power from 10-60 watts.

VLS3.60DT



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The VLS3.60DT comes standard with Laser Interface+™ and a number of additional options are available to enhance your laser processing capabilities. All Universal laser platforms use interchangeable components, giving you the ability to tailor your system to fit your needs.

#### FEATURES

- Industrial quality American built C02 laser cutting & engraving machines
- · 10, 30, 40, 50 or 60 watts of laser power
- · Laser Interface+ print driver
- · Set and run multiple focus settings in one job
- · Red dot pointer
- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- Field ungradable firmware and software extends the useful life of the system
- fully enclosed CDRH Class 1 safety enclosure for safe operation
- Shielded, interchangeable focussing optics stay cleaner for a longer period of time

	Work area	610x305mm (24x12")				
	Table size	679x370mm				
	Rotary travel	360 degrees - max 4" diam				
	Max cut depth (acrylic)	12mm				
	Max cut depth (wood)	10mm				
	Print driver	Laser Interface+				
	Connection	USB 2.0 high-speed compliant				
	PC control	Requires dedicated PC				
Z	Laser power options	10, 30, 40, 50 or 60 watts				
\$ATIC	Power	1200 watts - 110/220V - 10A <b>Single phase</b>				
ECIFICATION	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc				
8 1 1	Exhaust specification	1 x 3" external port				



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The VLS3.75 is a free-standing platform designed to be the ideal entry point into light-duty manufacturing. The VLS3.75 is also installed in many educational institutions around the world for architecture, product and graphic design, and materials research programs. The VLS3.75 is a single laser platform that offers a choice of six laser cartridges, ranging in power from 10-75 watts. The VLS3.75 offers a material processing envelope of 24"x12"x9", 2,592 in<sup>3</sup> (610x305x229mm, 42,475 cm<sup>3</sup>).

Standard Uniquely Universal features on the VLS3.75 include Laser Interface+™ and Rapid Reconfiguration<sup>™</sup> and a number of additional options are available to enhance your laser processing capabilities. All Universal laser platforms use interchangeable components, giving you the ability to tailor your system to fit your needs.

#### FEATURES

- Industrial quality American built C02 laser cutting & engraving machines
- · 10, 30, 40, 50, 60 or 75 watts of laser power
- · Laser Interface+ print driver
- · Set and run multiple focus settings in one job
- · Red dot pointer
- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- Field ungradable firmware and software extends the useful life of the system
- Fully enclosed CDRH Class 1 safety enclosure for safe operation
- Shielded, interchangeable focusing optics stay cleaner for a longer period of time

# **VLS3.75**



	Work area	<b>610x305mm</b> (24x12")				
	Table size	737x432mm				
	Rotary travel	360 degrees - max 8" diam				
	Max cut depth (acrylic)	15mm				
	Max cut depth (wood)	12mm				
	Print driver	Laser Interface+				
	Connection	USB 2.0 high-speed compliant				
	PC control	Requires dedicated PC				
Z	Laser power options	10, 30, 40, 50, 60 or 75 watts				
ECIFICATION	Power	1200 watts - 110/220V - 10A Single phase				
	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc				
\$ \$	Exhaust specification	1 x 4" external port				



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Universal's VLS4.75 is a free-standing platform offering a spacious work area and the ability to quickly adjust laser power with our patented Rapid Reconfiguration. Designed and engineered for light manufacturing and prototyping, the VLS4.75 is a single laser platform that offers a choice of six laser cartridges ranging in power from 10-75 watts.

**VLS4.75** 



The VLS4.75 offers a material processing envelope of 24"x18"x9", 3,888 in<sup>3</sup> (610x457x229mm, 63,713 cm<sup>3</sup>). Laser Interface+™ and Rapid Reconfiguration™ are Uniquely Universal features that come standard on the VLS4.75, and a number of additional options are available to enhance your laser processing capabilities. All Universal laser platforms use interchangeable components, giving you the ability to tailor your system to fit your needs.

#### FEATURES

- Industrial quality American built C02 laser cutting & engraving machines
- · 10, 30, 40, 50, 60 or 75 watts of laser power
- · Laser Interface+ print driver
- Set and run multiple focus settings in one job
- · Red dot pointer
- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- Field ungradable firmware and software extends the useful life of the system
- fully enclosed CDRH Class 1 safety enclosure for safe operation
- Shielded, interchangeable focussing optics stay cleaner for a longer period of time

	Work area	<b>610x458mm</b> (24x18")				
	Maximum part size	737x584x229mm				
	Rotary travel	360 degrees - max 8" diam				
	Max cut depth (acrylic)	15mm				
	Max cut depth (wood)	12mm				
	Print driver	Laser Interface+				
	Connection	USB 2.0 high-speed compliant				
	PC control	Requires dedicated PC				
N	Laser power options	10, 30, 40, 50, 60 or 75 watts				
ATIC	Power	1200 watts - 110/220V - 10A <b>Single phase</b>				
ECIFICATION	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc				
8 1 1	Exhaust specification	1 x 4" external port				



The largest in the VLS platform line, the VLS6.75 has a wide and deep engraving area that can accommodate a variety of materials. The VLS6.75 offers a choice of six laser cartridges ranging in power from 10-75 watts. The material processing envelope of 32"x18"x9", 5,184 in<sup>3</sup> (813x457x229mm, 84,950 cm<sup>3</sup>) makes the VLS6.75 a versatile laser engraving solution for most award and sign shops.

In addition to the basic capabilities of the machine, there are a number of patented Uniquely Universal features that are only available from Universal Laser Systems. Laser Interface+<sup>™</sup> and Rapid Reconfiguration<sup>™</sup> are Uniquely Universal features that come standard on the VLS6.75, and a number of additional options are available to enhance your laser processing capabilities. All Universal laser platforms use interchangeable components, giving you the ability to tailor your system to fit your needs.

#### FEATURES

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**VLS6.7** 

DATA SHE

- Industrial quality American built C02 laser cutting & engraving machines
- 10, 30, 40, 50, 60 or 75 watts of laser power
- · Laser Interface+ print driver
- · Set and run multiple focus settings in one job
- · Red dot pointer
- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- Field ungradable firmware and software extends the useful life of the system
- · fully enclosed CDRH Class 1 safety enclosure for safe operation
- Shielded, interchangeable focussing optics stay cleaner for a longer
  period of time

## **VLS6.75**

	Work area	810x458mm (32x18")		
	Maximum part size	940x584x229mm		
	Rotary travel	360 degrees - max 8" diam		
	Max cut depth (acrylic)	15mm		
	Max cut depth (wood)	12mm		
	Print driver	Laser Interface+		
	Connection	Parallel port standard. USB and ethernet optional		
7/	PC control	Requires dedicated PC		
	Laser power options	10, 30, 40, 50, 60 or 75 watts		
	Power	1200 watts - 110/220V - 10A Single phase		
FECIFICATION	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc		
л Г	Exhaust specification	2 x 4" external port		

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The ILS9 platform is designed for laser material processing in a wide variety of production environments. Flexible enough to be installed as a standalone system or integrated into an automated manufacturing line, the ILS9.75 is an excellent choice for no-tool prototype production and is also used in research and development facilities around the world. In addition to a spacious work area the ILS9.75 incorporates our Pass-Through feature, which allows both side doors to be opened to process material of unlimited length. Universal's ILS platforms are also the only CO2 laser systems in the world that can be converted between CDRH Class 1 and CDRH Class 4.

The ILS9.75 is dual laser compatible and has a processing power range of 10 watts, when using our smallest laser cartridge, to 150 watts when using two of our 75-watt lasers (ILS9.150D)

#### FEATURES

- Pass-Through Mode, designed to accommodate laser processing of continuous materials, such as long sheet goods or rolled materials.
- 10, 25, 30, 40, 50, 60 or 75 watts of laser power (dual laser option up to 150 watts
- · Laser Interface+ print driver
- · Set and run multiple focus settings in one job
- · Red dot pointer

time

- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- · Field ungradable firmware and software extends the useful life of the system
- Fully enclosed CDRH Class 1 safety enclosure for safe operation
- $\cdot$  Shielded, interchangeable focussing optics stay cleaner for a longer period of

# ILS9.75/1500

	Work area	<b>914x610mm</b> (36x24")			
	Max part size	1029x762x305 mm			
	Rotary travel	360 degrees - max 10.25" diam			
	Max cut depth (acrylic)	25mm			
	Max cut depth (wood)	18mm			
	Print driver	Laser Interface+			
	Connection	USB 2.0 high-speed compliant			
	PC control	Requires dedicated PC			
PECIFICATION	Laser power options	10, 25, 30, 40, 50, 60 or 75 watts Dual laser option (up to 150 watts)			
CAI	Power	220V-240V/10A (1 laser) Single phase			
	Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc			
8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Exhaust specification	2 x 4" external port			



The ILS12.75/150D is our largest platform. Engineered specifically for manufacturing environments, it can handle applications ranging from prototyping to automated manufacturing. In addition to a spacious 1219x610mmwork area, like the ILS9 the ILS12 incorporates our Pass-Through feature, which allows both side doors to be opened to process materials of unlimited length. Universal's ILS and XLS platforms are also the only CO2 laser systems in the world that can be converted between CDRH Class 1 and CDRH Class 4.

The massive processing power of the ILS12 allows it to function as a standalone production solution, but it can also be integrated into an automated assembly line and has a processing power range of 10 watts, when using our smallest laser cartridge, to 150 watts when using two of our 75-watt lasers (ILS12.150D).

#### **FEATURES**

- Pass-Through Mode, designed to accommodate laser processing of continuous materials, such as long sheet goods or rolled materials.
- 10, 25, 30, 40, 50, 60 or 75 watts of laser power (dual laser option up to 150 watts
- · Laser Interface+ print driver
- · Set and run multiple focus settings in one job
- · Red dot pointer

time

- Print preview function
- · Field ungradable firmware and software
- · Job time estimator
- · RoHS compliant electronics
- · Field ungradable firmware and software extends the useful life of the system
- Fully enclosed CDRH Class 1 safety enclosure for safe operation
- · Shielded, interchangeable focussing optics stay cleaner for a longer period of

# ILS12.75/1500

Work area	1219x610mm (48x24")			
Max part size	1334x762x305mm			
Rotary travel	360 degrees - max 10.25" diam			
Max cut depth (acrylic)	25mm			
Max cut depth (wood)	18mm			
Print driver	Laser Interface+			
Connection	USB 2.0 high-speed compliant			
PC control	Requires dedicated PC			
Laser power options	10, 25, 30, 40, 50, 60 or 75 watts Dual laser option (up to 150 watts)			
Power	220V-240V/10A (1 laser) Single phase			
Compatible software	CorelDRAW, 2D Design, AutoCAD, Illustrator etc			
Exhaust specification	2 x 4" external ports			
	Max part size Rotary travel Max cut depth (acrylic) Max cut depth (wood) Print driver Connection PC control Laser power options Power Compatible software			

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#### THE WORLD'S MOST ADVANCED, POWERFUL AND FLEXIBLE LASER PRINT DRIVER FOR MATERIAL PROCESSING SYSTEMS.

Our Laser Interface+ is a materials-based print driver unique to Universal machines that gives you the choice of automatic or manual control over power, speed, pulses per inch and other system settings. Laser Interface+, combined with the Universal Control Panel (UCP), gives you complete control over your laser processing system.

Universal's laser systems are known for their ease of use. To get great laser processing results, all you have to do is insert your material, select the correct material type, enter the material thickness and press start.

The technology that makes this all possible is Laser Interface+. Laser Interface+ is powered by a comprehensive materials database which is the product of years of research and development by a team of highly trained materials scientists. Universal's materials scientists are always looking for ways to make laser processing more intuitive and efficient. They've just had a breakthrough: the materials database that powers Laser Interface+ is now better than ever.



#### ENHANCED MATERIALS DATABASE

Universal's laser systems are known for their ease of use. To get great laser processing results, all you have to do is insert your material, select the correct material type, enter the material thickness and press start, it really is as simple as that!

	25W C0	D2 (10.6µ) Laser Settings for VLS3.50		
Selected: Standard Materi	al Cast Acrylic 331003		Intensity Adjustment	
(	Find	Next	Raster	
- Glass			A	🚯 09
Metal			Vector Engraving	
Matural				🙆 09
Plastic				
ABS			Vector Cutting	
- Acrylic			─   ⊜ ♦	🔂 🛛 09
- Cast Acrylic				
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Cast Acryli Continuous C Click to select m	ic Deep Engraving Cast Acrylic	ght-click for other commands. Vector Performance	•	
Click to select m Notes: Print Special Effects	ic Deep Engraving Cast Acrylic aterial, double-click to edit, ri			
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By implementing more refined processing algorithms, our materials scientists have successfully increased the accuracy, efficiency, and responsiveness of Laser Interface+ materials settings across the material spectrum. Whether your material is hard or soft, very thin or very thick, you can be sure Laser Interface+ will provide the optimum material processing settings. One major benefit of the improved database: projects processed using the improved materials database will now enjoy higher processing speeds and better quality results in many instances.



#### MANUAL MODE

in manual mode there are many advanced settings that allow for extremely fine control of cutting and engraving operations settings on critical jobs.

Giving you access to the full range of settings Manual mode allows you to adapt settings manually and once you have found the optimum settings you can save them into the materials database. A fantastic feature giving you full control over the output of every job from your Universal Laser.

M	aterials Da	tabase	Manual Cor	ntrol							
						_aser Settin	gs for VLS6.6I	D			
	Color	Mode	Power	Speed	PPI	Z-Axis	0	0	0	0	Mode:
	Black	Rast	25.0%	100%	500	3.00mm	I.	I.	1.	1 D	×
•	Red	Vect	100%	15%	500	3.00mm					Z-Axis:
•	Green	Skip	50.0%	100%	500	0.00mm	Power	Speed		Z-Axis	
•	Yellow	Skip	50.0%	100%	500	0.00mm	Po	Spe	Æ	Z-A	
•	Blue	Vect	15.0%	25%	500	3.00mm					
•	Magenta	Skip	50.0%	100%	500	0.00mm					
•	Cyan	Skip	50.0%	100%	500	0.00mm	۲	۲	۲	۲	
•	Orange	Skip	50.0%	100%	500	0.00mm					
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lma;	ge Density		1	lma	ge Enhancemer Contras	1	abled _	]	C	≜ррłу	<u>D</u> efaults
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#### **Service Features**



Laser Interface+ was designed to help you keep your laser system running in top condition. Laser Interface+ knows when your laser system is nearing its next preventative maintenance event and can even contact your authorized channel partner for you when it is time to schedule service. Laser Interface+ is also equipped with a software update feature, so you can be sure you always have the latest version. There are no hidden costs so your laser never becomes redundant as software advances.



#### Productivity Features

Laser Interface+ is just the right tool to maximize the productivity of your laser system. Easily manipulate job files, move designs around the engraving field and duplicate them at a click to enjoy effortless economies of scale.

Up to 2000 engraving jobs can be saved to memory in Laser Interface+, including all materials setting: you will never be more than a minute away from production. And if time is truly essential, use the job time estimator to determine the run time of a new job before processing it. For the truly connected, Laser Interface+ can be controlled by external signals if the optional automation interface accessory is installed.

#### **Enhancements**

You can fine-tune images, even at low print resolutions, to increase cutting and engraving quality. You can also tune the laser/driver interaction to produce finer quality on critical jobs.

#### **Print Preview Function**

Allows you to preview a job on-screen before it is actually run to ensure proper set-up; also displays the progress of each job as it is running.

#### Job Time Estimator

Provides an estimate of the time needed to process a job. This will allow you to accurately price a job or work out the price per item if you were to process on a mass produced basis.

#### Job Storage Buffer

Store and run thousands of jobs and change, restore and save job parameters on the fly without the need to reopen the graphics software file.

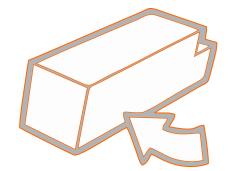


The laser cartridge or laser tube is the heart of the machine generating the power to cut, engrave or mark a variety of materials. Universal is the only laser system manufacturer that offers Rapid Reconfiguration<sup>™</sup>.

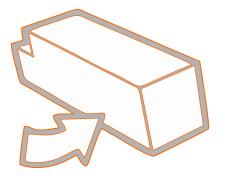
This patented technology allows users to adapt their laser materials processing solution to match their ever-changing business needs – no tools or special training required. At its core, Rapid Reconfiguration allows users to very simply install and reinstall any ULS laser source onto any ULS laser system. On other laser systems, the task of changing laser sources can be complicated and dangerous and can cause several days of downtime.

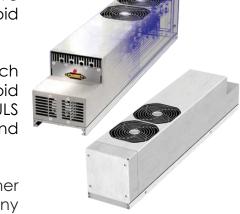
Our lasers offer such a high level of reliability that they are frequently seen incorporated in other manufacturers machines. Our  $CO_2$  lasers have a superb life expectancy and there are many examples working in industry for more than 11 years.

Rapid Reconfiguration is especially beneficial in that the most valuable component of a laser system (the laser) is not tied to a particular machine. Almost any laser can be conveniently, quickly and without tools interchanged between different systems or exchanged with a laser of a different wattage, maximizing the return on your investment in laser sources.



Expands processing capability Increases flexibility and productivity Protects and optimises investment Requires minimal downtime for service and repair Safety and ease of use Enables other Unique Universal Features Provides superior return on investment







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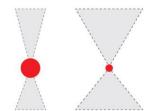
These optics allow the laser beam to be focused to a much smaller spot, producing sharper images at tighter tolerances. It's particularly suited to intricate engraving and direct marking on some metals.

#### High-Power Density-Focusing Optics™

HPDFO – High Power Density Focusing Optics (HPDFO) uses a patented method to expand the laser beam within the focusing carriage. This expansion allows the beam to be focused into a much smaller focal spot, suitable for intricate, tight-tolerance engraving and for direct marking on some metals. In addition to sharper images and expanded material processing capability, systems using HPDFO benefit from lighter-weight delivery optics and an efficient motion system.



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#### Laser Beam Spot Size

Universal's HPDFO produces a smaller, more focused beam "spot" than a standard optical laser beam delivery system. HPDFO increases the power density of the laser to achieve the effects of a laser of much higher power.

#### How to use it? Engrave directly on some metals

Marking on metals with standard power density optics typically requires several hundred watts of CO2 laser energy or the use of a marking compound such as Cermark or Thermark. Not so with the HPDFO! The higher power density provided by the HPDFO allows direct marking on steel, stainless steel, titanium and chrome with CO2 lasers rated at 25 watts or higher.

#### Make sharper cuts and more intricate engravings

Engraving and cutting tasks involving thin, closely spaced lines are much clearer when using HPDFO due to the smaller spot size. The difference between engraving with a standard lens and engraving with HPDFO is similar to the difference between cutting foam with a bread knife and cutting it with an X-Acto blade.

#### Create higher-definition in photographs

HPDFO really excels when engraving photographs. The smaller spot size allows you to produce sharper engravings from photographs taken at high resolutions—high megapixel counts—than standard optics.



#### Streamline cut-path positioning for printed materials

Printed materials sometimes require precision cutting in register with the printing. Common registration methods, including edge registration and pin registration, have accuracy limitations and can present workflow challenges. To solve these issues, Universal developed camera registration for ILS platforms.

#### Camera Registration for ILS Platforms



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Universal's Camera Registration (UCR) features a camera mounted inside the laser system that locates and determines the exact positions of registration marks on printed materials. Software

adjusts the predefined cut path to fit the material. A laser system user simply places material close to the correct position in the laser system and the UCR automatically makes adjustments to the cut path to fit the material where it is placed.

Camera registration systems are available for other cutting systems, but they typically either require users to leave their design software of choice and work within proprietary registration layout software or they require additional software plug-ins that may not be compatible with future design software updates. In addition, they typically recognize only one or just a few types of registration marks.

With Universal's Camera Registration (UCR) advantages customers are able to:

- Work directly with most popular vector-based Windows software including Adobe Illustrator, CoreIDRAW and AutoCAD (no import or software plug-ins required)
- Use standard registration marks including unfilled circle, solid circle, crosshairs and combined crosshairs/circle
- Teach new registration marks

Workflow



• Get support directly from Universal because Universal's Camera Registration was developed by and is supported by Universal



#### The Fastest Laser Engraving and Marking Systems in the Industry

SuperSpeed<sup>™</sup> offers customers the unique ability to drastically improve system productivity in engraving and marking. This patented technology (US6313433) was designed from the ground up to benefit the customer. Our SuperSpeed technology:



Improves processing throughput Improves reliability and uptime Provides ultimate processing flexibility Enables additional resolutions Is easy to use

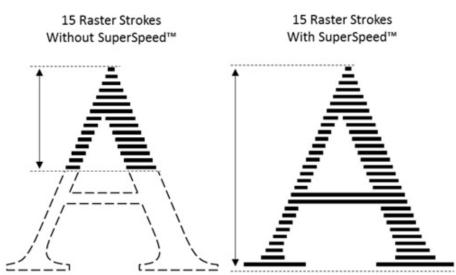
#### SuperSpeed - How It Works

When a laser platform is equipped with two CO2 lasers of the same power, the combining optics result in one S-polarized beam and the other P-polarized. The SuperSpeed attachment uses this difference in polarization to independently control the focusing location of each laser. This is accomplished by placing an optical system containing a Thin Film Polarizer (TFP) in the beam path. The TFP allows the P-polarized laser to pass through transparently, while reflecting the S-polarized beam. A precision actuator is attached to a mechanical linkage, which controls the angle between the two beams. The focusing optics in the carriage focuses each of these beams to a slightly different

location within the processing field.

#### Improves processing throughput

In raster mode, the carriage is moved bi-directionally along the xaxis while the laser is modulated to mark and engrave on the material. Typical systems focus the laser energy to a single point, causing the material to be processed one line at a time. This is also true for single beam systems that use multiple lasers – all of the laser's energy is limited to focusing on a single point. The SuperSpeed module overcomes this limitation by producing two focal spots – one for each laser beam. This means that the system can deliver two raster lines at a time, dramatically improving system productivity.





Local and international health and safety legislation (such as COSHH, NIOSHH,OSHA etc) states that it is the employers responsibility to protect the health, welfare and safety of their employees. Failure to do so can result in expensive legal action, potential fines and poor employee relations.

#### The need for fume extraction

All lasers supplied should be done so with a suitable extraction system. If someone is prepared to supply you a laser without extraction then this should sound alarm bells!

Many types of dust and fume are hazardous to health if inhaled. People can become permanently sensitised to fumes which means that continued exposure, even to very small amounts of fume, may cause asthma attacks or other respiratory diseases. A high performance fume extraction system will help to:-

#### • Protect employee health.

• Ensure compliance with Health & Safety regulations such as OSHA, NIOSH, C.O.S.H.H, MAK, AFNOR and HSG258 or equivalent.

• Increase production speeds.

• Reduce complaints by operators due to odours, dust and vapours.

- Avoid the possible cost of health compensation claims.
- Reduce the cost & time to clean laser lenses, conveyors, guarding, soldering machines and other equipment.
- Reduce product contamination.
- Provide a better working environment.
- Reduce downtime.

#### Which Extraction System?

There are two types of extraction system available:-

• **External** - pump contaminated air outside

• **Internal** - at source capture and filtration or LEV (local exhaust ventilation) system

In our opinion the best system to use is an internal LEV system. These capture fumes at the source thereby preventing fumes escaping into the workplace. They also filter hazardous particles and gasses which would otherwise be pumped into the outside environment causing pollution.

Using an internal filter system also avoids issues with environmental regulations and potential complaints from neighbouring businesses about fumes and odours.

All of our quotes to supply a laser will include a suitable extraction system based on your individual requirements.







#### Servicing

With the top technician in Europe, Asia and Africa our fully extensive servicing schedule allows us to support all of our customers and give them the service that they need. We supply 3 different service contracts each slightly different in content and your industry or proposed applications will determine which contract best suits you. It is recommended that every machine purchased is done so with a service contract to ensure efficient running of the laser at all times. Various discounts are given on parts and emergency callout rates depending on the chosen service contract.





#### Training, delivery and ongoing relationships

Onsite training, delivery and installation is included with all of our systems. Our main emphasis as well as selling what we consider to be by far superior machine currently on the market, is the training, support, cost of replacement parts (laser cartridge) and ongoing relationships between the supplier and customer.

#### Ongoing support

One Touch are one of very few suppliers who offer free unlimited technical support. As a supplier of Universal Laser Systems we are renown for our technical knowledge of the machines and our expertise and knowledge of applications sets us apart from the rest. As a dedicated supplier we pride ourselves on the services we provide to our existing customers.

Support as far as we are concerned is as necessary as good quality initial training, it shortens the learning curve and gives peace of mind to all of our customers who know that if something goes wrong or they need any advice on settings then we are willing and will be able to help.



#### Warranty

Standard manufacturer's warranty on our complete range of machines is **13 months** on the platform and **25 months** on the laser cartridge.



Food Technology

Product & Graphic Design



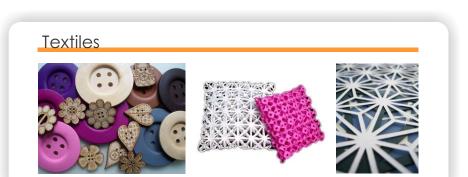
#### Creative tools for Education

Lasers have revolutionised the teaching of CAD/CAM in education and their versatility allows them to be used across the curriculum. From fine engraving onto textiles to cutting acrylic and wood, the applications really are endless and allow students of all abilities to achieve fantastic results and push the boundaries when it come to their design concepts.

The advantages of having a laser in place are clear but when asking our customers this is what they said:

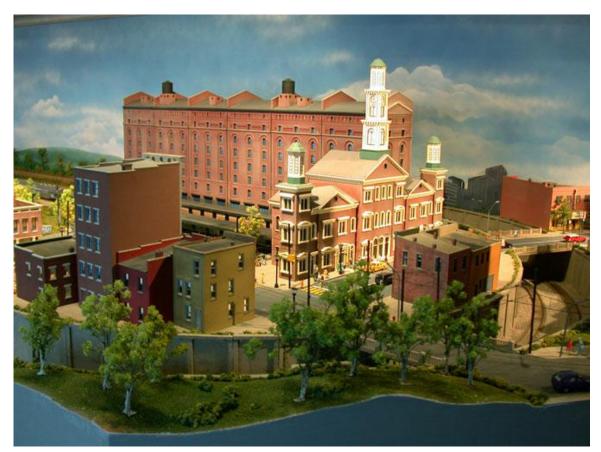
- Simple and rapid CAD/CAM potential
- Extremely high levels of accuracy
- easy production of complex shapes
- fast cutting speeds
- high quality cut edges and engraved results
- rapid repetition production potential
- wide range of materials can be processed
- small amounts of waste generated
- no need for jigs &
- quick set-up from design to final product











#### Architectural model making

Create intricate architectural models using wood, acrylic, or other materials

Many architectural firms and schools use our laser systems to create precise scale models that accurately represent topography, elevation and space. Our laser systems can make your models more realistic because laser systems can process materials traditional methods cannot. With a laser system, the doors in your model can be made of real wood. It's as simple as creating a CAD drawing, processing the artwork with the laser system and assembling the finished architectural model. Client proposals and presentations take on a new look with laser processing.

Quickly and easily produce realistic, precisioncut scale models in-house. Scribe or cut mat board, acrylic and other plastics, wood, paper and most non-metals crisply and cleanly.













On-demand personalisation has become very popular and laser engraving is a great way to generate additional revenue and higher margins. Laser engrave logos, text, artwork and even identification numbers on iPods, phones & accessories and hundreds of other items.

We offer a variety of laser systems for consumer-facing applications. Quickly customise products including electronics, sporting goods, musical instruments, and automotive trim. Our systems' laser cutting, marking, graphic imaging and engraving capabilities can be applied to leather, fabric, stainless steel, anodized or coated metal, brass, glass and marble.



Cathy









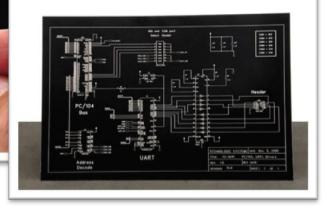
Cost-effective non-contact prototyping and production, no tooling required.

Universal offers permanent, non-contact, precision laser marking and cutting solutions for medical device manufacturers. Prototyping, channel etching and identification, cutting filter media, and degating are some of the applications available with a laser system. Universal laser systems can be used to engrave micro fluidic channels into acrylic for laboratory use.









Create templates with a laser system to hold identification tags or name plates in place for lowvolume laser marking and production. A laser system provides flexibility for producing items in large quantities as well as small lot sizes and single pieces



#### Create personal, memorable items.

Our laser systems can easily add value to the gift items you already sell. By turning simple objects into unique, personal items, you can grow your product line and business with little additional effort. Universal laser systems can permanently mark and engrave a wide variety of materials and designed to grow with you as your business expands.













## Expand your design possibilities by using new materials.

Our laser systems give you more creative options than other means of cutting, engraving, or marking. Images created in any software, including Illustrator®, AutoCAD®, SolidWorks ®, and CorelDraw®, can be easily recreated on materials such as Mylar®, mat board, marble, wood, glass, fabric and leather. Universal laser systems are also excellent at engraving photographs.

#### Photo Imaging

Having one of our laser systems gives you the ability to produce images and graphics on a variety of materials, including marble, wood, metals, glass, acrylic, plastic and more. Universal's exclusive 1-Touch Laser PhotoTM software automatically applies filters to adjust contrast and definition, creating a picture-perfect photo engraving every time without the need for additional 3<sup>rd</sup> party software.

















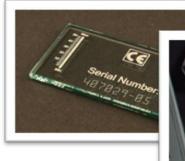
Fast, bold and precise, laser marking offers a permanent solution for complying with government regulations while minimizing the risk of part damage and deformation. We understand the importance of compliance and are a good partner to guide you through UID requirements.

#### Create permanent markings without compromising material integrity.

Universal laser systems are capable of laser marking and laser engraving identification codes that conform to ASTM, GS1, and UID standards. Create inconspicuous permanent marks on materials such as anodized aluminium without compromising material integrity.

#### **Serial Numbers**

Serial and identification numbers can be guickly and easily marked or engraved on a number of materials using a laser system from Universal. Mark and engrave lot codes and date codes on plastic bottles. Avoid outsourcing costs by fulfilling labelling needs in-house.



LOT: 4442568-45A - INI- 500-0001 S/N: 500-0002 S/N: 500-0003 S/N: 500-0004 SIN: 500-0005











### Create new packaging without dies or tools.

Laser systems are ideal for package development. A packaging idea can go from design to prototype in a single step and revisions can be made quickly.



#### **Packaging Concepts**

Universal laser systems outperform other packaging creation methods in flexibility, production and precision. Create mock-ups, packaging, and point-ofpurchase displays with speed and accuracy. Produce specialty die cuts on a variety of materials and perform multiple processes in the same work area, including through-cutting, kiss-cutting, perforating and scoring. Eliminate post-finishing and add dimension to visual communication items.









### Create intricate designs without learning new software.

Our laser systems provide much higher precision over a broader range of materials than other methods, and there is no need to learn new software. Universal laser systems work with the software you already have to cut, etch and mark intricate shapes on any kind of paper, including cardstock, vellum, and tracing paper.



Create interesting annual reports and other collateral pieces. Precise cuts and sharp curves are easy to produce with a laser system.

#### Stencils

Cut materials such as Mylar®, mat board, cardstock, oil paper, vinyl and other materials to create art stencils, home decor stencils and official stencils for spray-painting letters and numbers.





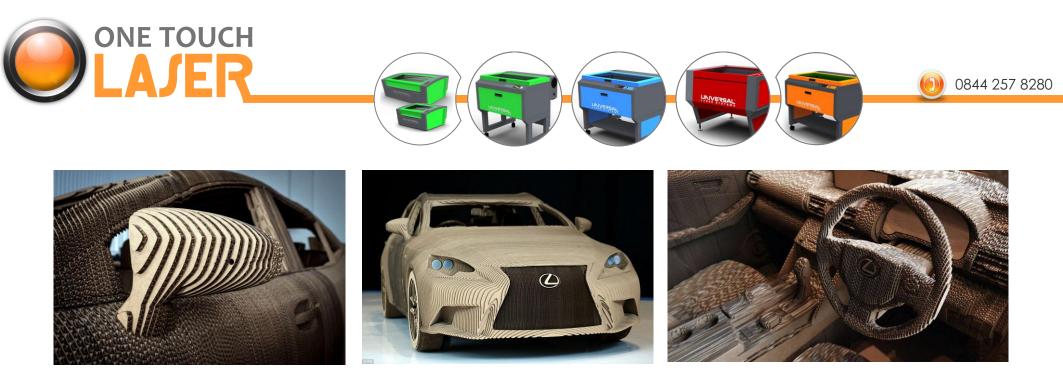












#### Make faster decisions and reduce proofing costs.

Taking an idea from design to final product in a single step. From the previous pages you can see that our systems can process many types of material, you can quickly create prototypes that accurately represent your design concept, all without tooling costs. Fabricating prototypes in-house reduces proofing time and expense and makes it simpler to evaluate design changes and experiment with new materials.

#### Prototyping

Prototyping - Keep prototyping in-house and on time with a Universal laser system. Perform tight-tolerance cutting, marking and etching using any graphic software program, including SolidWorks® AutoCAD®, Illustrator®, and CorelDraw®, to quickly take an idea from concept design to finished product.





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## Cut, mark, image and engrave with the same machine.

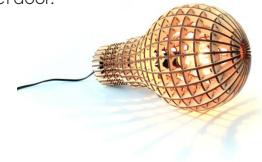
Transfer complicated designs, logos and photos to wood with laser marking, cutting and engraving. Curves and sharp corners can be laser cut with wonderful precision.

Create precise, intricate cuts with a Universal laser system. Our laser systems deliver speed, repeatability and performance on complex cutting applications.

A laser system can produce high resolution engravings that simply cannot be replicated by competing methods. Checkering on gunstocks, for example, can be accomplished relatively simply with laser engraving.

#### Wood Inlay

Create unique effects and add value to finished products with custom inlay on wood. Mother of pearl can be cut and then inlaid into the engraved wood to create a high value item, whether it's a gift box, coaster or cabinet door.











There are various important questions that need to be asked when you're considering which laser will work best for you and your proposed applications. With so many lasers currently on the market it's easy to think that they are one and the same. We have outlined below a few points that we think should be discussed prior to purchase and below each we have detailed our specific answer to each of the questions:

#### Is the machine supplied with any warranties?

Our lasers are supplied with a 13 month warranty on the platform and 25 months on the laser cartridge -

#### What are the projected ongoing running costs?

The main cost consideration is the cartridge recharge. For a 50 watts cartridge the cost for replacement is around £1,800. If you choose a standalone extraction system then replacement filters will be required, it is difficult to estimate how regularly the filters will require replacing as it entirely depends on usage, however, we would estimate that you will require a complete set every 12 months – a complete set of filters is around £500 + VAT.

#### What support is offered by the supplier?

We offer free unlimited telephone technical support to all of our customers and have service contracts available to suit individual establishments. Each service contract has its own benefits, discounts and guaranteed response time and it is recommended that every laser purchased is done so with the addition of a service contract to ensure efficient running of the laser at all times.

Our main emphasis as well as selling what we consider to be by far superior machine currently on the market, is the training, support, cost of replacement parts (laser cartridge) and ongoing relationships between the supplier and customer. In recent months it has come to our attention that other suppliers do not only have huge cost implications as far as their lasers are concerned but are also not prepared to support them when they are out in the field.



We hope that the information provided is extensive enough in enabling you to make an informed choice on which laser best suits your requirements?

If you have any questions, would like to discuss your options further or are interested in a demonstration of the equipment then please do not hesitate to contact us on

0844 257 8280

or email

sales@onetouchlaser.com