

# TOOL AND LABEL MARKING MADE EASY

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Easy to use and easy to maintain, a Universal laser system combines precision and programmability with speed and efficiency.

## Bar Codes and Text on Labels

Universal Laser Systems, Inc. builds CO<sub>2</sub> and YAG laser systems that function like a printer from Windows-based programs like CorelDRAW® or AutoCAD®. Our CO<sub>2</sub> laser systems are computer-controlled and can accommodate a wide variety of materials, including metals using marking compounds, anodized aluminum, plastics and much more. And with the addition of the new *High Power Density Focusing Optics Kit*, ULS CO<sub>2</sub> laser systems can mark directly on steel and steel alloys, even titanium. Our Yag laser can directly mark bare steel, aluminum, brass and other metals. Laser systems are ideal for volume production of identification plates/tags, bar coding, serialization and date coding.



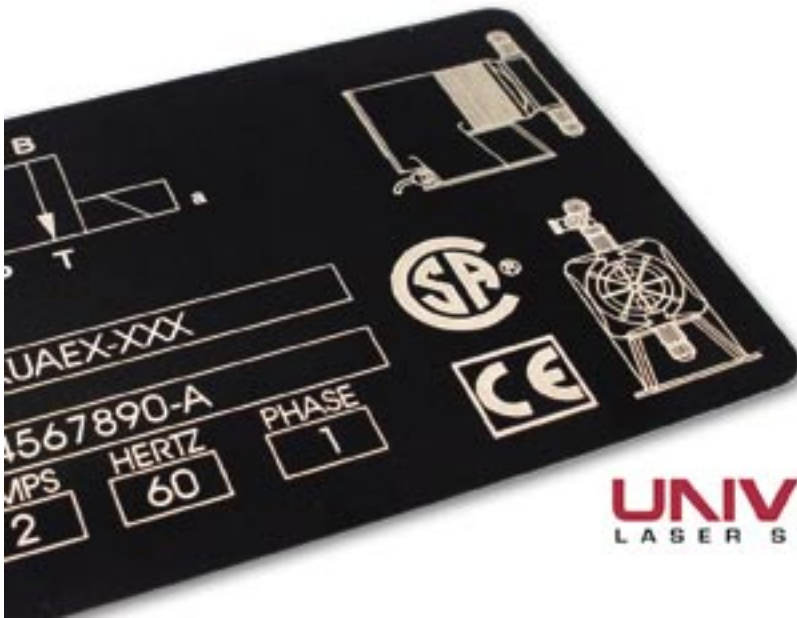
**Avoid Die-Cutting Costs**

**Reduce Inventory Costs**

## YAG Marking on Brass



## Direct CO<sub>2</sub> Laser Marking on Anodized Aluminum



## CO<sub>2</sub> Laser Marking Using Metal Marking Compound



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# Tool & Label Marking Guide

MATERIAL	MARKING TECHNIQUE	CO <sub>2</sub>	YAG
		25 - 150 WATTS	
<b>Bare Metals</b>			
Steel and Steel Alloys, Titanium	Mark directly on bare material with YAG or with HPDF Optics Kit for CO <sub>2</sub>	✓	✓
Steel, Chrome-Plated Steel, Aluminum, Brass, Copper, Others	Use Metal Marking Compound (MMC) with CO <sub>2</sub>	✓	✓
<b>Coated Metals</b>			
Anodized Aluminum, Oxide Coatings, Painted Metal	Mark directly on coated material	✓	✓
Carbide, Nitride	Mark directly on coated material with YAG or MMC with CO <sub>2</sub>	✓	✓
<b>Non-Metals</b>			
Ceramic	Bare material or glass marking compound to darken mark	✓	✓
Composites, Wood, Plastics, Rubber, Other Materials	Bare material, can mark and cut	✓	

**Setting Up Your System:** The VersaLaser operates like a printer from Windows XP; ULS M, V, X or X2 Platforms operate like printers from Windows 2000/XP. You can use conventional graphics, CAD or layout software - no proprietary application software is needed. A ULS print driver links the laser to your computer. Power is 110 or 220 volts from a wall plug. Fume ventilation is required, but is not included. An external ventilator may be used, or for the VersaLaser a Computer Controlled Air Cleaner Cart option is available.

**Marking Method:** A CO<sub>2</sub> laser engraving system can mark directly onto bare plastics, anodized aluminum, painted surfaces, rubber and many other materials. With the addition of the HPDF optics,\* the CO<sub>2</sub> laser can mark directly on stainless steel. For other bare metals, a metal marking compound is required to make an indelible, permanent mark. Metal marking compound is a substance that is applied to the metal surface. The laser beam fuses compounds with the metal surface, leaving a dark mark (almost black) that does not rub off and is not affected by cleaners or solvents. Leftover metal marking compound can be washed off with water.

**Positioning Tools for Marking:** The laser marks according to your design and page layout from your graphics software. The laser does not exert pressure on parts being marked. Tools may be manually registered by simply placing them on the work table. The laser has a red dot pointer that serves as an alignment aid for manual registration. The laser may also be used to create templates or fixtures from materials, such as wood, plastic, foam, acrylic, etc., for repetitive or high-accuracy marking. A Rotary Fixture option is available for marking on cylindrical objects.

## Below are just some of the applications for a Universal laser system...

- Permanent, indelible marking on metals, plastics, label materials
- Batch or one-off production of pre-cut labels and tags
- Custom-cut labels, tags, identification plates
- Mark numbers, text, logos, patterns
- Mark tools and parts for identification and traceability
- Etch serial numbers, date codes

**To learn how your business can benefit from Universal technology, call 1.800.859.7033 or go to [www.ulsinc.com](http://www.ulsinc.com).**

\*not available for VersaLaser

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