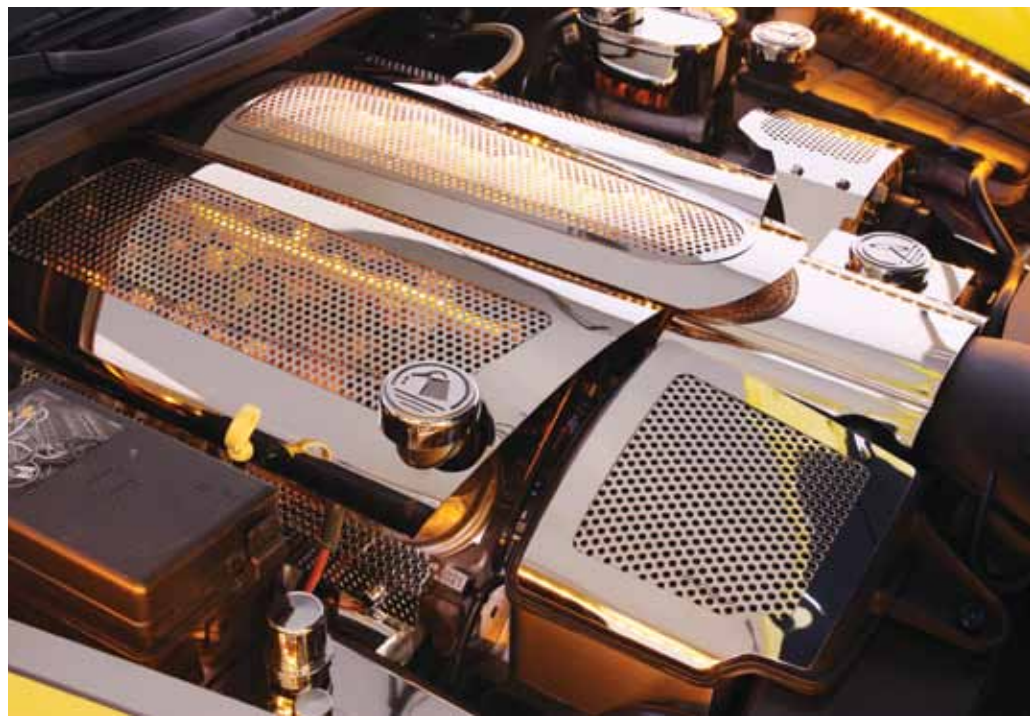


LARGE FORMAT LASER CUTTING & ENGRAVING SYSTEMS



The Kern History



Established in 1982, Kern Lasers is a family owned and operated company specializing in the design and manufacture of laser cutting and engraving equipment. The company headquarters are located in the beautiful lakes country of central Minnesota. Kern's manufacturing facility consists of a modern 14,000 square foot building with twenty dedicated fulltime employees.

From the beginning, Kern has had a vision to build laser systems that will fit the customer's needs at an affordable price with the versatility to suit a variety of industries.



KCAM Laser Software

Kern's software engineers have developed a state-of-the-art laser cutting and engraving software called KCAM.

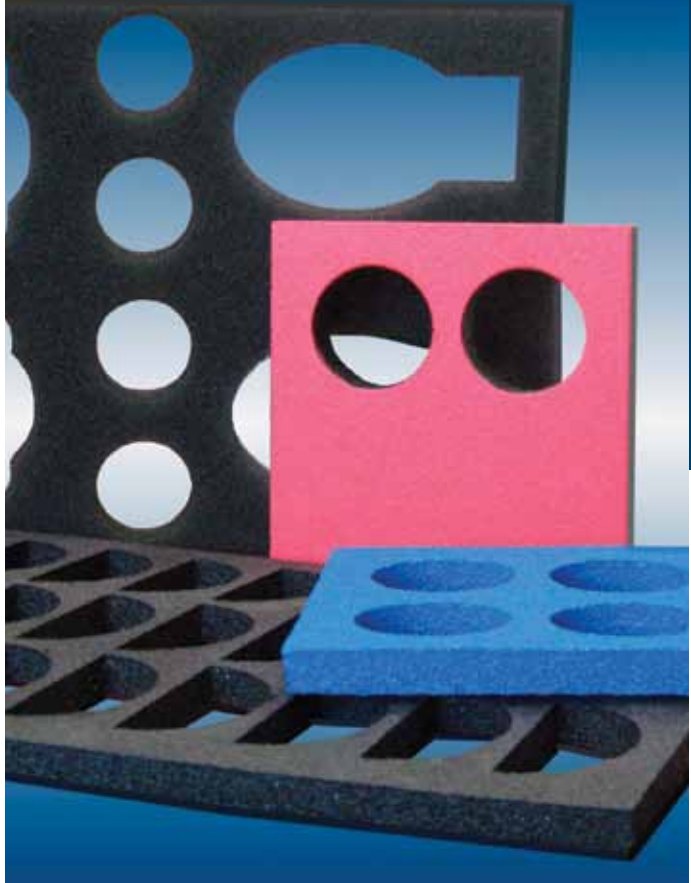
Through years of research and customer feedback, KCAM has developed into one of the most powerful tools in the laser cutting and engraving industry. KCAM offers a convenient user interface to set all commonly used settings.

The Kern printer driver will load your files to the laser from popular design software such as CorelDRAW®, AutoCAD LT® and Adobe Illustrator®. KCAM will also open .TIF(raster) and .PLT(vector) files directly into the software.

Vector path control allows for smooth precise cutting of the most detailed and intricate CAD files.

The speed and power of the laser beam is adjusted automatically when an upcoming angle is sensed. This eliminates vibration that typically would occur in sharp corners. As the laser moves out of the corner the nozzle speed accelerates resulting in a smooth, time efficient cut.

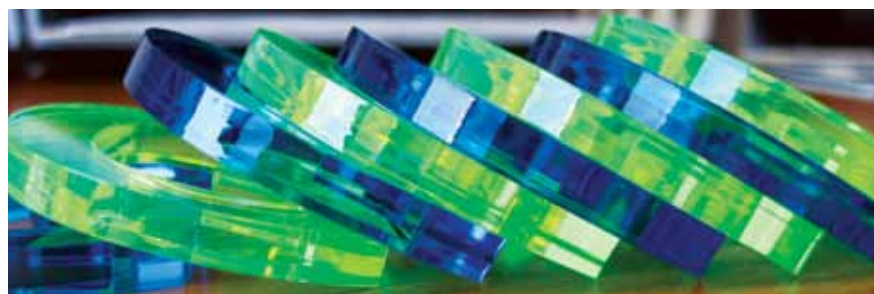
KCAM laser software is continually being upgraded and all customers have access to the latest software upgrade from our website.



Acrylic, Plastic and Foam

Straight cut, fire polished edge, one pass cutting

Acrylic cutters, plastic fabricators and sign makers alike are finding the versatility of the Kern Laser System to be unrivaled by other laser system providers or comparable tools. By using a special lens designed to increase the focal length you are able to cut thick acrylic with a straight, fire polished edge with just one pass of the laser beam.



Acrylic can be etched a frosty white color that looks great for producing a variety of signage including point of purchase displays and LED edge lit signs. Another common technique is to etch off the back side of painted acrylic and then color fill with a contrasting color to create beautiful commercial signage for hospitals, schools and businesses.

Tool shadowing by means of laser cutting foam is a very popular application for large shops and government facilities looking to enhance their tool organization. Simply scan in a photo of the tools to be shadowed and let the design software automatically trace the vector outlines to be cut. Take it one step further by laser etching the serial number of the tool on the backing of the foam cutout so you instantly know which tool is absent.

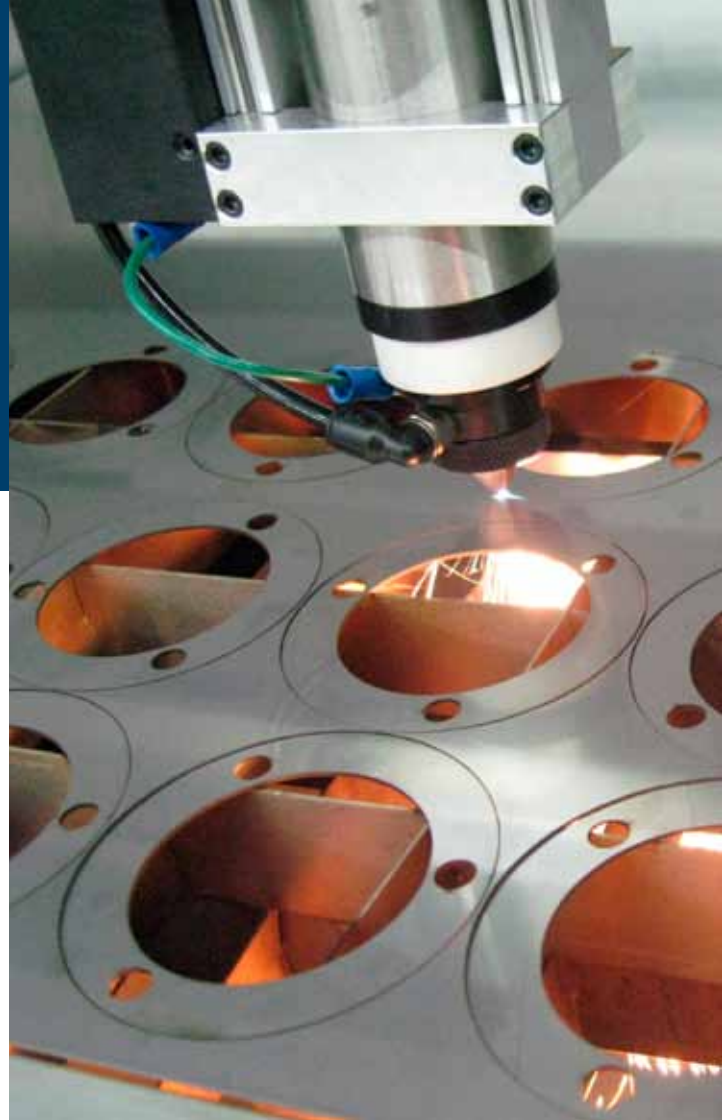


Sheet Metal

Clean and smooth cut, low operating cost, intricate cutting

Kern's high wattage industrial laser systems can be equipped with metal cutting technology for fabrication of thin gauge sheet metal. A key part of this technology is a capacitance sensing height follower that automatically adjusts the nozzle height to compensate for inconsistencies in the flatness of the metal being cut.

A gas assist nozzle hooked up to oxygen or nitrogen delivers a beam that is capable of producing a clean, smooth cut with high processing speeds. The non-contact, ultra-thin cutting kerf allows for precision cutting of mild steel, stainless steel, spring steel and nickel. Reflective metals such as brass, titanium and aluminum can be cut in thinner gauges.



Advanced metal cutting features in the KCAM software allow for control over pierce delays, modulation frequency and a variable air assist.

Part identification can be streamlined by laser etching descriptions or bar codes onto your parts before they are cut out. The etchings are most often dark in color and laser marking sprays can be used for an enhanced look. Anodized metals can also be etched so that the coating is removed, exposing the raw metal.

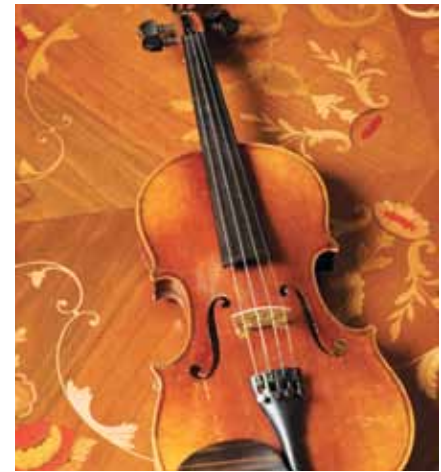
Hardwood, Softwood and Exotics

High-speed cutting and 3D engraving

Wood is one of the most common materials processed on a laser system. No other machine is capable of giving you the detail and cutting capability of a Kern Laser System. The ability to cut curves and sharp corners makes this system a must have for furniture makers and architectural model designers.

Laser cutting of wood is a simple procedure that doesn't leave behind saw dust. Different colors of wood can be inlaid together adding value to your product by giving it a unique, artistic touch. Furniture, cabinet doors and skateboards are just a few products where this technique can be utilized.

Hardwoods are a popular substrate for 3D engraving as they hold much detail and engrave at different depths uniformly when power levels are modulated on a single pass.



The ability to etch stone with an economic, low wattage laser is making laser etching equipment a sound investment for companies currently outsourcing such work.

Digital photographs, scanned photographs, text and vector art are all acceptable forms of art that can be processed and sent to the laser engraver.

A taller gantry height and roller bed make loading and unloading of large, heavy stones easy even for one person. High-speed servo motors will etch stone at industry leading speeds with astounding detail.

Monument makers and memorialists find Kern's stone etching lasers a must have in their shops.

Granite, Marble and Glass

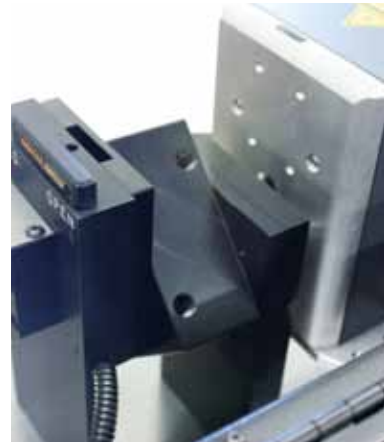
Durable etching on a variety of natural stones

Advancing Laser Technology



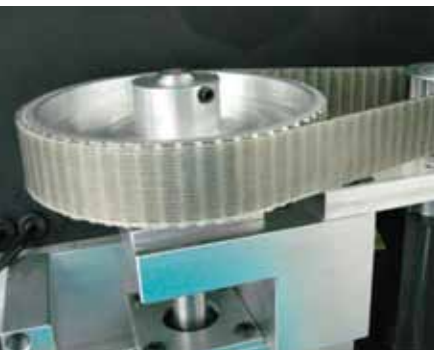
Personalized Customer Service

The Kern sales team is cross trained to the extent that each individual operates lasers on a weekly basis and will also double as your technical support staff. This ensures that from the start of our relationship you are dealing with a knowledgeable individual who has your best interest in mind.



Thank You

We trust that after reviewing this literature you are left with a better understanding of how laser technology can improve your manufacturing process and add value to your product line. Please feel free to contact one of our friendly sales team associates if you have questions regarding our laser equipment and its capabilities.



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