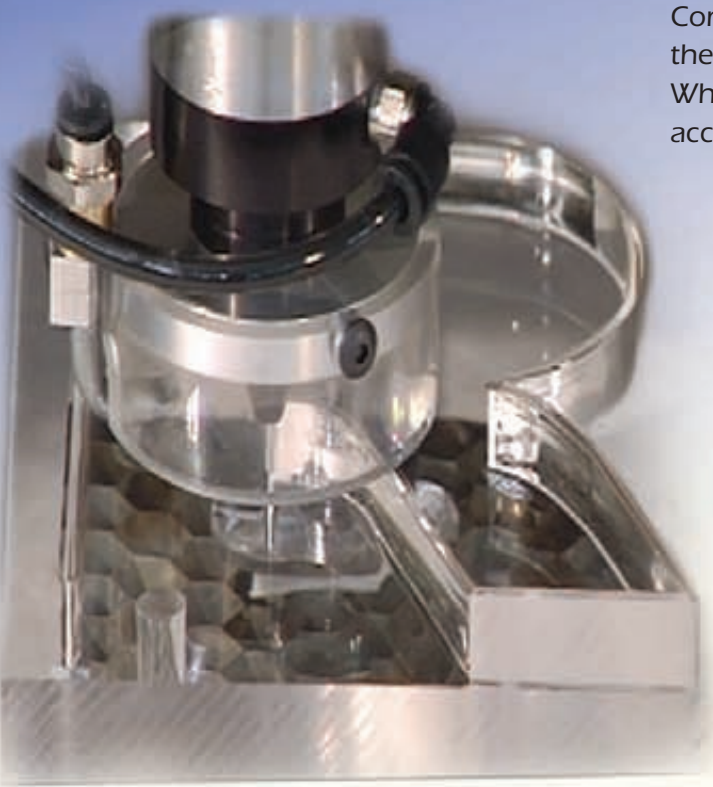


WE DO SAMPLES!

And, we do the BEST samples!

Compare! Send us your material and file to process, then compare the Kern Laser System detail and accuracy to yours or others. Whether cutting or engraving, give your customers the most accurate and detailed product you can with a Kern Laser System.



SUPPORT

The customer support you will receive from the staff at Kern Electronics and Lasers will assure you that you have made the right choice. From information and samples before the sale to the technical assistance after years of operation, we strive to deliver the best service and technical support to keep your system operational.

We offer a one year warranty with all systems. We have a toll free number to assist you with any questions about the laser system operations, KCAM software settings and CorelDRAW or AutoCAD design software.



COMPLIES WITH CDRH STANDARDS
(CENTER FOR DEVICES AND RADIOLOGICAL HEALTH)



1501 INDUSTRIAL DRIVE
WADENA, MINNESOTA 56842
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OR LOCAL: 1.218.631.2755
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WWW.KERNLASERS.COM

KERN



LARGE FORMAT LASER CUTTING AND ENGRAVING SYSTEMS

KCAM SOFTWARE

KCAM is a Windows-based, motion and laser control software that has evolved into an industry leading program.

KCAM controls the motion for the servo motors through user friendly pull down menus that have password capabilities to lock user selected settings of the laser table.

The KCAM software has easy to use menus for setting the laser power, speed and modulation frequencies separately for cutting and engraving.

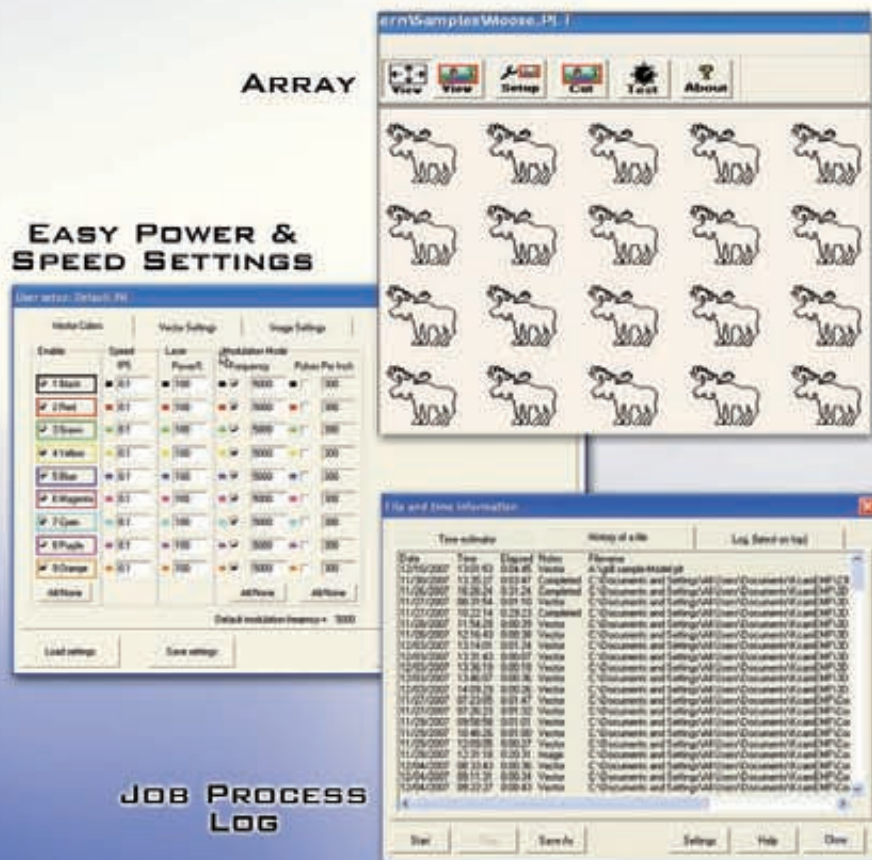
You can pause KCAM and shut down the laser system without having to shut down the computer, so you can start tomorrow where you left off today. When you are ready to continue your job, the system will resume cutting or engraving where you last paused the KCAM program.



DUAL LASER SYSTEM



Our Standard Laser Systems should not be overlooked! You will double production with a standard gantry design with two lasers. The KCAM software will control each laser separately so both can be of equal power. The slave laser connects to the master laser via an adjustable bar. Remove the bar and the slave laser can be locked to the far right of the gantry leaving the master laser full use of the laser table.



FEATURES INCLUDE:

- Easy to use pull down menus
- 256 automatic power levels for 3-D engraving
- Fast movement between parts
- New built-in Help screen
- Save and load job settings
- Programmable pause features
- Array one part over entire table
- Feed forward
- Automatic ramp down on corners
- Automatic line smoothing
- Dual laser control on one tabletop
- Offset artwork anywhere on table
- Cut and engrave from the same file
- Choose direction of cutting and engraving
- Engraving resolution of 20 dpi to 1200 dpi
- Position in File feature skips to precise line of cutting or engraving
- Design with CorelDRAW, AutoCAD, Adobe Illustrator, Adobe Photoshop and more



MARBLE



MAPLE



CHERRYWOOD

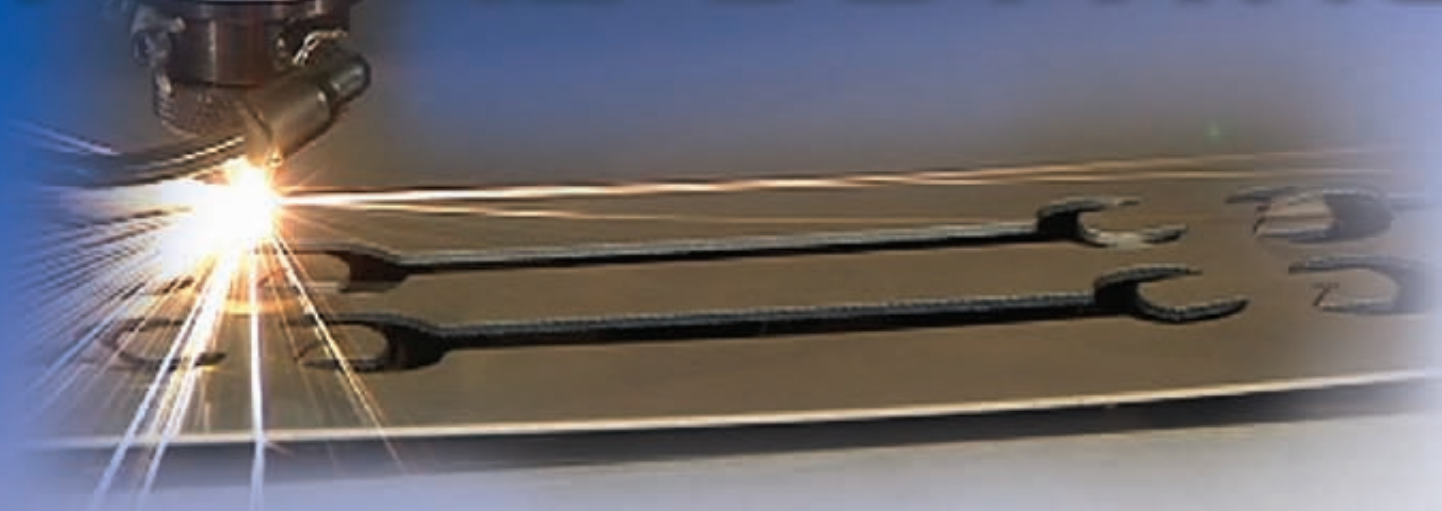


STAINLESS STEEL



GORIAN

METAL CUTTING



Not all laser systems can cut metal. The Kern Laser System can cut mild steel and stainless steel with the same table used to cut and engrave wood and plastics. Kern has developed a unique automatic focusing assembly, software and special optics that allow the laser to cut mild steel, stainless steel, shim stock and nickel. The automatic height follower can set the nozzle at .020" above the metal surface and maintain that distance even if the metal is uneven.

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INTRICATE MILD STEEL



SHIM STOCK



.125 STAINLESS STEEL

THE METAL CUTTING OPTION INCLUDES:

- An automatic Z movement that raises and lowers the optics tube over the metal being cut
- A height follower controller that controls the distance sensed from the nozzle to the metal sheet
- Optics nozzle
- User settable parameters in the KCAM software to control piercing delays, modulation frequencies, laser power and speed

Etching into metal can be done with or without spray chemicals applied depending on the desired look.

All cutting and etching of metal requires oxygen as an assist gas. This can be connected into the laser system through a quick coupler located on the back of the laser table.



COMPANY LOGOS



LETTERING & NUMBERING



PHOTOS

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3-D ENGRAVING

The Kern Laser System leads the industry in engraving 3-D images. We simply ask you to compare our work with any other engraving system on the market and you will see the crisp, clean quality behind our 3-D engraving technology.

3-D images can easily be created in popular software such as CorelDRAW, Adobe Illustrator or Adobe Photoshop. The grayscale colors of your file are automatically sent to the laser as power levels. Black pixels will fire the laser at full power and white pixels will fire the laser at no power. Any shade of grey in between black and white will be automatically divided into 256 levels of laser power.

3-D engraving doesn't have to be intricate to be effective. You can achieve stunning product for your customers in less time, as shown in the Palm Tree Inn engraving at the right, which took only 20 minutes to create and four minutes to engrave.



The Kern Laser System can also do extremely intricate and detailed 3-D engraving, as shown in the little boy fishing and Model-T samples.



GRAYSCALE IMAGE



ENGRAVED PRODUCT

LASER POWER
100%



LASER POWER
OFF

52 SERIES LASER TABLE

Available in 3 sizes: 52"x25", 52"x50" and 52"x100"



HSE (HIGH SPEED ENGRAVING)

- Engraving speed up to 150" per second
- Cutting speeds up to 10" per second
- Acceleration force over 5 G's
- Industrial grade anti-backlash belts
- Easy open cover for general maintenance
- Lasers from 30 watts up to 400 watts
- Same beam diameter and power over entire table
- Safety interlock cover switches
- Minimal mirror alignment

LASERS

- Lasers range from 30 watts up to 400 watts. The most common is 150 watts
- All lasers will cut, engrave, and 3-D engrave. A larger laser size will cut thicker material, engrave deeper, and cut thinner materials faster
- The 52 Series Tables are Class IV systems
- Focus optics available are 1.5", 2.5" and 5.0"
- Wavelength is 10.6 microns
- Average beam diameter is 0.004" to 0.006"

EASE OF USE

A Dell computer is supplied with each system. An adjustable arm is used for the monitor, keyboard and mouse. CorelDRAW is included with each system and is just one of the software programs that has been integrated with KCAM to make it easy to get your artwork ready to engrave and cut.

SAFETY

- A certified electrical panel will control power to the computer, motion controller, laser controller, laser power supply, vacuum blower and chiller for the laser
- Connect to 230 VAC 60 amp single phase service (400 watt systems are 230 VAC 3 phase 60 amp)
- Emergency stop switches are located on up to four corners of the laser table depending on table size
- Laser safety glasses are included

Table size shown:
52"x100"

ADDITIONAL FEATURES

- Clean wrap-around gantry design
- Low maintenance
- Tempered solid steel industrial frame
- Easy access from 3 sides of the table
- Air assist for optics
- Air knife to assist in cutting plastic
- Plug-in controllers
- Electrical control panel
- Exhaust pickup for engraving
- X-axis flying optics design
- 7" deep vacuum table
- Manufactured in the U.S.A.
- Cut/engrave area may vary with options

PERFORMANCE

CUTTING SPEEDS	Up to 10"/second
ENGRAVING SPEEDS	Up to 150"/second
ACCURACIES	+/- .004"
REPEATABILITY	.0005"
STRAIGHTNESS	+/- .002"
VACUUM BLOWER	Up to 3100 cfm
TABLE WORK HEIGHT	36.25"
FOOTPRINT	52" x 25" = 70" x 50" 52" x 50" = 70" x 75" 52" x 100" = 70" x 125"
WEIGHT	52" x 25" = 1600 lbs. 52" x 50" = 2500 lbs. 52" x 100" = 4200 lbs.

