



## THE KERN HISTORY

Kern Laser Systems was founded in 1982 by Gerald Kern with the main objective to design and manufacture top quality industrial laser cutting and laser engraving machines to meet demanding production schedules. The company headquarters are located in the beautiful lakes country of Minnesota. The facility consists of a modern 50,000 sq. ft. building with 35 full-time employees.

Kern Laser Systems started by supplying motion systems for the existing computerized rotary engraving machines. As the sealed

CO<sub>2</sub> lasers became commercially available, Kern incorporated its motion package with the laser, developing a complete turnkey laser cutting and engraving solution. Kern's vision has always been to manufacture laser systems that will fit the customer's needs, at an affordable price, with the versatility to suit a variety of industries.

Today, Kern Laser Systems is proudly owned and operated by the first and second generations of the Kern family. Our goal moving forward is to constantly improve our products, improve processing times, and continue to offer our customers the best customer service in the laser industry.

## THE KERN DIFFERENCE

### DEDICATION

Operating a factory in a small town in the Midwest certainly has advantages. Employees at Kern have the good fortune of knowing each other through work, family, sports, and community activities. Bringing those relationships to the workplace combined with a great Midwestern work ethic makes for a dynamic and exciting place to work. Our quality workforce is who we are as a company for those reasons.

We take pride in not only building one of the finest lasers on the market, but also in developing and nurturing the relationships with those who buy from us. Customers from throughout the USA and around the world who come to visit us witness firsthand the passion Kern employees have as they share their observations. A Kern laser is not just Made in the USA, it is made in the midwest, in our factory, by our employees. Dedication at Kern Lasers is all-encompassing and something we are fiercely proud of.

### VERSATILITY

Versatility and profitability go hand in hand with a Kern laser. Changing from cutting light metal to plastics takes only a few minutes. Kern has the ability to cut wood, plastics, leather, and light metal with one machine, with virtually no downtime.

A Kern laser is not the typical laser in a box model. Rather, the flat open surface of a Kern laser allows access from all sides of the table making loading and unloading of material simple. Knowing you can house one machine that gives you the freedom to switch from job to job is called being efficient. With a Kern laser, you can give yourself the tools to maximize your shop time and exceed your customer's expectations – that combination is something most shops cannot afford to be without.



### DEPENDABILITY

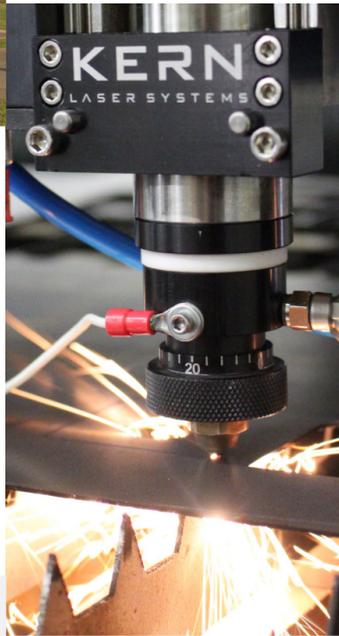
There are few things in life that are more important than one's reputation. At Kern, we build our reputation one client at a time. We produce top quality machines by technicians who are experienced with manufacturing lasers as well as customer communications.

### INNOVATION

At Kern Laser Systems, we recognize the ever-changing world of technology. That is a primary reason why our research and development is housed in a new separate facility and staffed by a dedicated team of qualified technicians. Our reputation is built on providing state-of-the-art machines, backed by high-quality service.

The passion we have at Kern Laser Systems to improve and develop new technology is part of our company commitment to our clients and to ourselves. Trust Kern Laser Systems to bring innovation to your business.

# MOVING LIGHT



1501 Industrial Drive  
Wadena, MN 56482  
218-631-2755 tel  
888-660-2755 toll free  
218-631-3476 fax

### PERSONALIZED CUSTOMER SERVICE

Kern's sales team is cross-trained to the extent that each individual operates lasers on a weekly basis and is able to assist on technical support issues. A dedicated, advanced technical support team is also available to our customers. This ensures that from the start of our relationship you are dealing with a knowledgeable individual who has your best interest in mind.

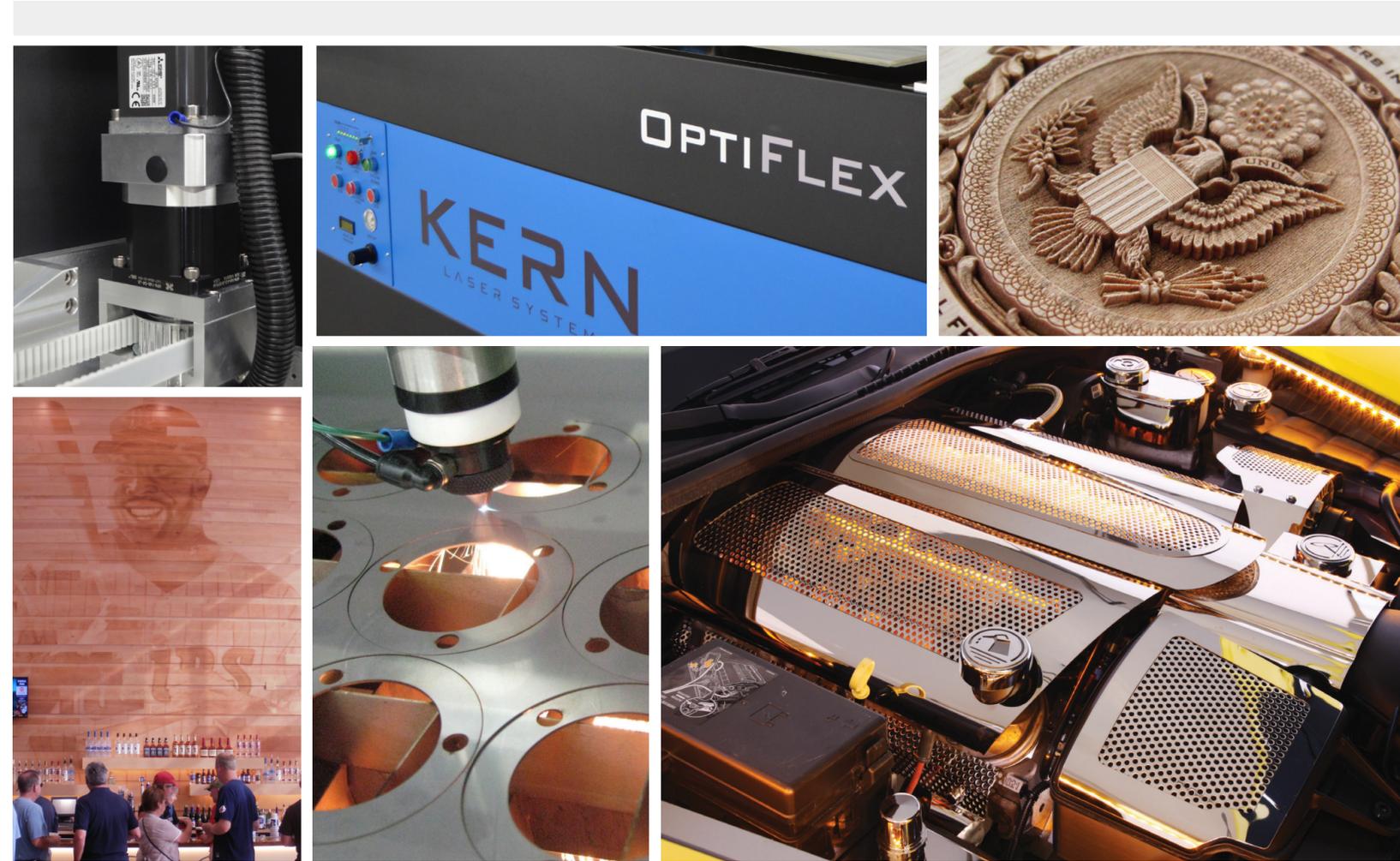
### THANK YOU

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.

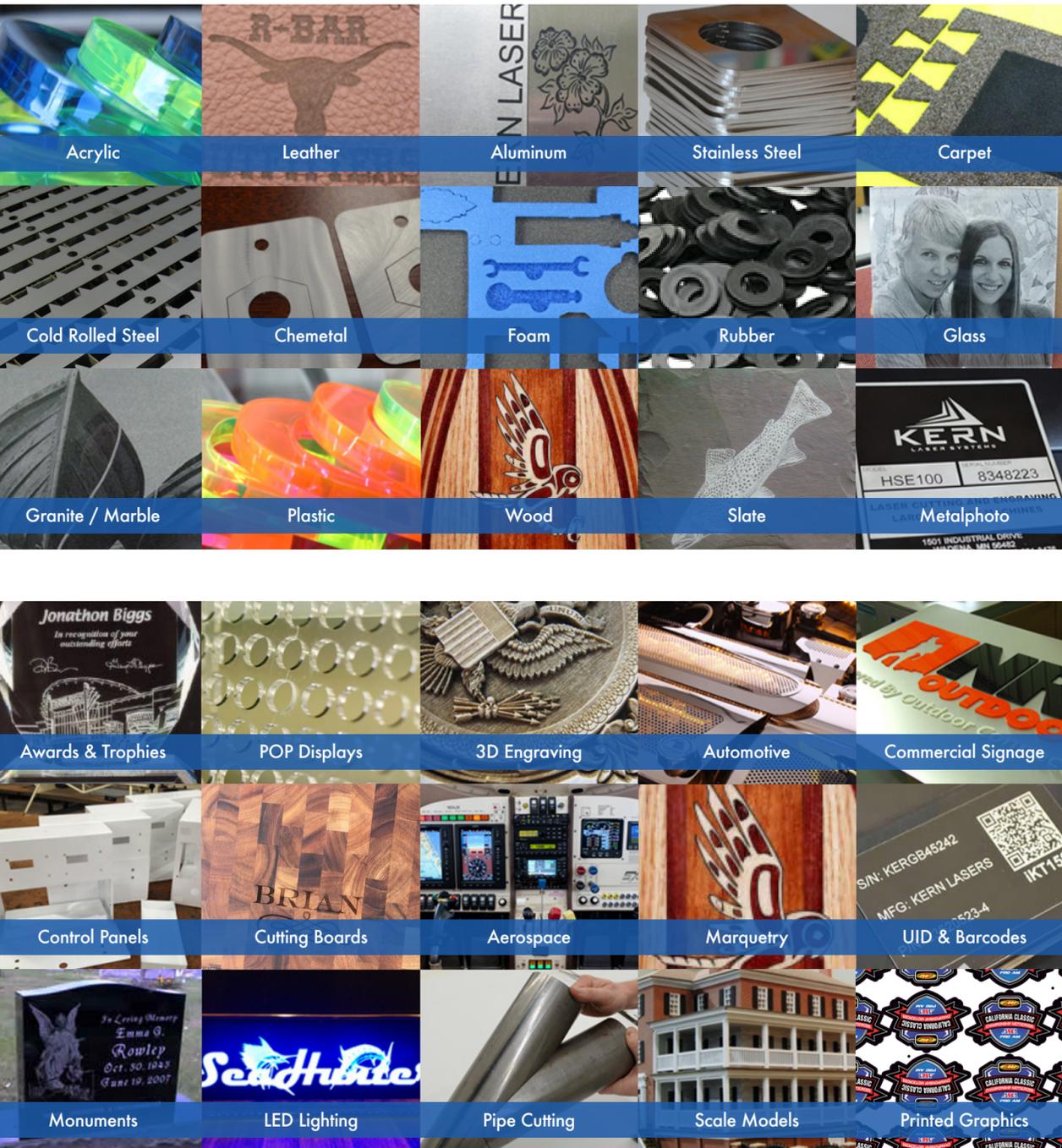
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INDUSTRIAL LASER CUTTING  
& ENGRAVING SYSTEMS



# MATERIALS & APPLICATIONS



# HIGH PERFORMANCE SYSTEMS

CO<sub>2</sub> Class 4



## OptiFlex

The OptiFlex is Kern's flagship large format, high performance laser system. The HyperDual motion package installed on the OptiFlex features a rack and pinion design and powerful servo motors at each side of the table. Cut acceleration rates are up to three times faster than previous models.

| Model            | OPF50  | OPF100     | OPF60120   | OPF80120   |
|------------------|--|------------|------------|------------|
| Cut/Engrave Area | 52" x 50"  | 52" x 100" | 60" x 120" | 80" x 120" |
| Laser Wattage    | 100, 150, 200, 250 and 400   |            |            |            |
| Laser Source     | CO <sub>2</sub> (10,600 nm)  |            |            |            |
| Motion System    | X: Servo motor w/ direct drive high speed belt,<br>Y: Dual servo motors w/ rack and pinion drive |            |            |            |

CO<sub>2</sub> Class 1



## LaserCELL

The LaserCELL is an enclosed, high performance laser cutting and engraving system. The Class 1 safety enclosure allows the system to be placed in high-traffic areas such as busy factory floors and university classrooms. Kern redesigned the LaserCELL's motion system making it the fastest and most productive laser system in their product lineup.

| Model            | LC50   |
|------------------|--|
| Cut/Engrave Area | 52" x 50"  |
| Laser Wattage    | 100, 150, 200, 250 and 400   |
| Laser Source     | CO <sub>2</sub> (10,600 nm)  |
| Motion System    | X: Servo motor w/ direct drive high speed belt,<br>Y: Dual servo motors w/ rack and pinion drive |

Fiber Class 1



## FiberCELL

The FiberCELL is a compact sheet metal fabricating system capable of cutting a variety of metals such as stainless steel, aluminum, brass, and copper. A Class 1 safety enclosure allows the system to be placed in high-traffic areas such as busy factory floors and university classrooms.

| Model         | FC50  |
|---------------|---|
| Cut Area      | 52" x 50"   |
| Laser Wattage | .5kW, 1kW, 1.5kW, 2kW, 2.5kW, 3kW   |
| Laser Source  | Yb-Fiber (1064 nm)  |
| Motion System | X: Linear motor w/ twin rails,<br>Y: Dual servo motors w/ rack and pinion drive |

CO<sub>2</sub> Class 4



## OptiDual

The OptiDual system is equipped with dual laser sources instantly doubling your laser cutting production. The KCAM laser software controls each laser independently, allowing both lasers to be tuned to equal power.

| Model            | OPD50  | OPD100     | OPD60120   | OPD80120   |
|------------------|--|------------|------------|------------|
| Cut/Engrave Area | 52" x 50"  | 52" x 100" | 60" x 120" | 80" x 120" |
| Laser Wattage    | 100, 150, and 200  |            |            |            |
| Laser Source     | CO <sub>2</sub> (10,600 nm)  |            |            |            |
| Motion System    | X: Linear motor w/ twin rails<br>Y: Dual servo motors w/ rack and pinion drive |            |            |            |

# ECONOMICAL SYSTEMS

CO<sub>2</sub> Class 4



## MICRO

The small format MICRO Laser System is an entry level machine with all the same capabilities of the larger systems offered by Kern. The class IV, open bed design gives you the control and ease of use that many enclosed systems lack.

| Model            | MICRO24   | MICRO48   |
|------------------|---|-----------|
| Cut/Engrave Area | 24" x 24"   | 48" x 24" |
| Laser Wattage    | 100, 150, 200, 250 and 400  |           |
| Laser Source     | CO <sub>2</sub> (10,600 nm)   |           |
| Motion System    | X: Servo motor w/ direct drive high speed belt,<br>Y: Servo motor w/ anti-backlash lead screw |           |



## EcoFlex

The EcoFlex Laser System is Kern's entry-level large format model. A wrap around gantry traverses over the cutting bed allowing for finished parts to be easily removed at all sides of the machine. The moving gantry features high speed servo motors and a flying optics beam delivery providing consistent beam power and quality over the entire work area. The EcoFlex machine is well known as a highly-productive laser system offered at an economical price.

| Model            | ECO50   | ECO100     |
|------------------|---|------------|
| Cut/Engrave Area | 52" x 50"   | 52" x 100" |
| Laser Wattage    | 100, 150, 200 and 250   |            |
| Laser Source     | CO <sub>2</sub> (10,600 nm)   |            |
| Motion System    | X: Servo motor w/ direct drive high speed belt,<br>Y: Servo motor w/ ball screw |            |