

KERN

HIGH PERFORMANCE / ENCLOSED
FIBER LASER CUTTING SYSTEMS

FiberCELL



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High Performance / Fiber Laser Systems

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. Sliding doors at the front and back as well as side sliding windows make part loading and removal an easy task. SigmaNest® Techno™ software is optional with the FiberCELL system. This advanced CNC laser software will maximize efficiency and machine throughput using advanced nesting and NC functions, including common-line cutting, bridge cutting, lead-in/tab generation and much more.



Model	FC50
Work Area	52" x 50"
Footprint, Doors Extended (W x L x H)	115" x 114" x 77"
*Footprint, Compact (W x L x H)	74" x 85" x 75"
**Part Clearance	2.125"
System Weight	3700 lbs

*Doors closed and minor parts removed. Further reduction in footprint is possible with removal of complete enclosure.

**Zaxis height can be customized

FiberCELL SPECIFICATIONS

Laser Classification	Class 1 Ytterbium Fiber Laser
Laser Wattage	.5kW, 1kW, 1.5kW, 2kW, 2.5kW, 3kW
*Positioning Accuracy	+/- .002"/ft
Repeatability	+/- .0005"/ft
Max Cutting Speed	20"/sec
Electrical	230v/1ph, 230v/3ph, 415v/3ph CE
Vacuum Blower	1500 CFM or greater
Air Assist	100 – 250 PSI (9-17 BAR)
Options Available	K-Vision Camera, Pipe Rotary, Auto Focus Beam Delivery

*Mapped table, under controlled conditions.

STANDARD FEATURES

Laser Source

Robust, high quality fiber laser sources setup for optimum efficiency, flexibility and reliability in industrial metal cutting environments.

Motion Package

Kern's next generation HyperDual motion package features a rack and pinion design driven by powerful servo motors at each side of the table. The result is smooth cut radiuses, quick acceleration rates, and the fastest processing speeds Kern has presented to date. The x-axis is powered by high quality linear motors.

Exhaust System

A blower package will remove fumes and small debris created during laser processing. An integrated downdraft table holds material secure to the table as it is being processed.

Chilling Unit

A dual channel closed-loop chilling unit will properly cool the laser source and beam delivery, ensuring a long laser lifetime and consistent cutting and engraving results.

Computer / Software

A high-performance computer and monitor package is included with each system. KCAM laser software, CorelDRAW® and an easy-to-use PDF converter are pre-installed on the computer.

Safety

A UL certified electrical panel is placed on each laser system which turns on and shuts down components of the laser system. US CDRH compliance requirements are upheld including emergency stop buttons, interlocked access points and a 5 second safety key switch.

Beam Delivery

LaserMech FiberMini® processing head results in a compact, lightweight and user-friendly beam delivery system. An optic drawer allows for easy replacement of the protective F-Lens. A convenient dial allows operators to easily adjust the focus depth of the laser beam.



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