

KERN

**HIGH PERFORMANCE
FIBER LASER CUTTING SYSTEMS**

FiberCELL



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High Performance Fiber Laser Cutting System

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 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
Working 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"
Footprint (W x L x H, Other Components)	36" x 36" x 40" (Chiller) 24" x 24" x 24" (Vacuum Blower)
Table Work Height (from Floor)	36"
System Weight	3700 lbs

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

FiberCELL SPECIFICATIONS

Laser Source Type	Ytterbium Fiber Laser
Laser Wattages	.5Kw, 1kw or 1.5kW
*Positioning Accuracy	+/- .002"/ft
Repeatability	+/- .0005"/ft
Max Cutting Speed	20"/sec
Z Part Clearance	3"
Vacuum Blower	1700 CFM
Air Assist Type	Oxygen, Nitrogen and Shop Air
Air Assist Pressure	100 – 250 PSI (9-17 BAR)
Options Available	K-Vision Camera, Pipe Rotary, SigmaNest® Techno™

*Mapped table, under controlled conditions.

STANDARD FEATURES

Laser Source

Kern installs quality fiber lasers with a robust design that have been setup for optimum efficiency, flexibility and reliability in industrial metal cutting applications.

Safety / Certification

A Class 1 machine enclosure and interlocked access points ensures a safe working environment. A UL certified electrical panel is placed on each system. FiberCELL machines are CDRH compliant to meet laser safety requirements set forth by US safety regulators.

Air Assist

A programmable air assist allows selection of the gas type and pressure setting used during the pierce, cut and jog between parts. Three quick-disconnect couplings at the rear of the machine allow for easy hook up of oxygen, nitrogen and shop air.

Beam Delivery

The FiberCELL is equipped with a LaserMech FiberMini® processing head resulting in a compact, lightweight and user-friendly beam delivery system. An optic drawer mechanism allows for easy replacement of a protective cover lens. A capacitance sensing height follower results in a non-contact cutting process.

HyperDual Motion

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 cutting speeds Kern has presented to date.

Chilling Unit

A closed loop chilling unit properly cools the laser source and beam delivery system ensuring a long laser source lifetime and consistent cutting results.

Blower Package

A vacuum blower package is connected to the machine to remove fumes and particles created during laser processing. A hose kit and all fittings between the vacuum blower and FiberCELL machine are included.

Computer / Software

A high performance computer and monitor are provided with each system. KCAM laser software and a basic design software are pre-installed on the computer system.



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