

CINCINNATI®

CL-900



Fiber Laser

Most Productive for Sheet Metal

Superior Part Accuracy and Quality

Exceptional Machine Durability

Unmatched Support Services

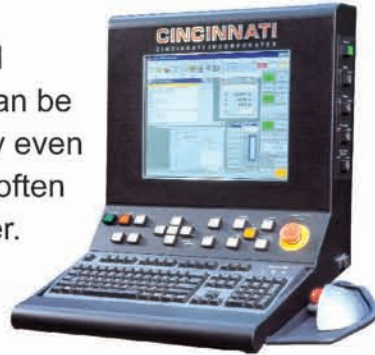
The Most Productive Laser

Intuitive, Powerful Control

The CL-900 human machine interface (HMI) is easily understood and intuitive in its use. This enables operators to produce good parts independently. An operator can be cutting parts quickly and accurately even in a work environment where they often switch from one machine to another.

The **CINCINNATI** HMI has a touchscreen display, easy to understand buttons and a full size keyboard with a Windows® Operating System. The HMI is located where the operator can easily monitor the cutting process while loading and unloading the CL-900.

Rather than using cumbersome tech tables, the CL-900 uses Dynamic Power Control (DPC™), which constantly adjusts to maintain optimum power for the varying cutting speeds.



Dual Pallet Productivity

The **CINCINNATI** CL-900 dual pallet design sets the pace as the simplest and most reliable available today. It even requires less floor space compared to previous models. The pallets move simultaneously, providing fast transitions between nests. One pallet can be loaded or unloaded while the laser is cutting on the other pallet. Less beam off-time results in more parts at the end of the day.

High-Speed Linear Motors

High-Speed Linear Motors are the fastest, most direct way to move a laser cutting head.

CINCINNATI introduced linear motor drives for lasers in 1996, a design concept since employed by many machine tool manufacturers. The CL-900 uses the latest, third generation, water-cooled, linear motor drive system.

CINCINNATI's linear drive is fast, smooth, accurate and trouble free, setting the pace in laser drive system design.

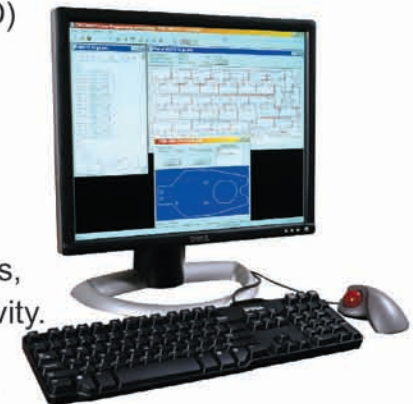


Cincinnati Laser Programming and Nesting Software

Computer Aided Manufacturing (CAM) software converts 2-D Computer Aided Design (CAD)

files into the machine code necessary to efficiently run a **CINCINNATI** laser. Feature Avoidance Software allows for head-down operation and significantly improves cutting times, contributing to increased productivity.

The optional **CINCINNATI** Scheduler Software automatically schedules and nests all your production requirements.



A New Benchmark for Machine Accuracy and Improved Part Quality



Advanced Beam Delivery

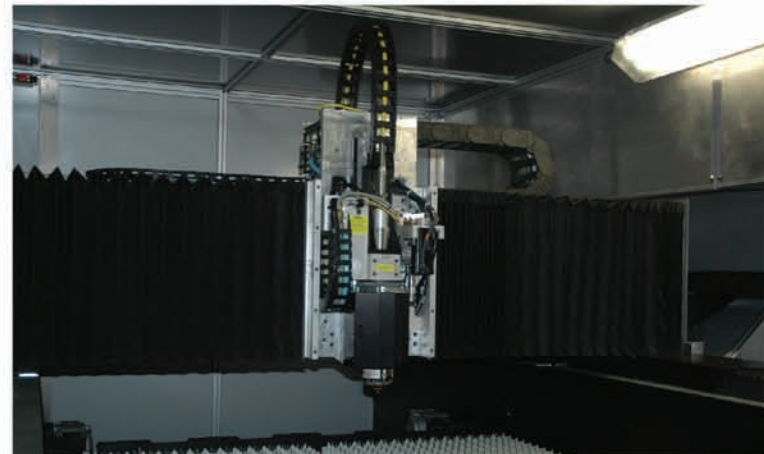
The beam delivery is a flexible glass fiber, eliminating external mirrors, bellows and beam purge requirements. The Autofocus head can use a 5", 7½" or 10" focal length lens and adjusts the focus point to the optimum position for piercing and then cutting. The result is accurate parts with superior edge condition.

Accurate Motion Control System

CINGINNATI® pioneered the utilization of a Digital Signal Processing motion controller, linear encoders, fiber-optic communications and linear motors to maintain unparalleled accuracy at very high speeds. The CL-900 incorporates the latest designs in each of these technologies. With a positioning accuracy of $\pm.001"$, Dynamic Power Control™, and kerf width compensation, the CL-900 provides parts that are more accurate than many shops can measure.

Rigid, Lightweight Gantry

The aluminum honeycomb gantry uses patented aerospace technology. The low gantry weight enables the CL-900 to achieve accelerations in excess of 2.3g. High acceleration is needed when processing parts with small radius arcs and sharp corners at high speeds. The aluminum honeycomb provides a rigid mounting platform for the cutting head. This stiffness eliminates deflection at high acceleration, ensuring exceptional part accuracy.

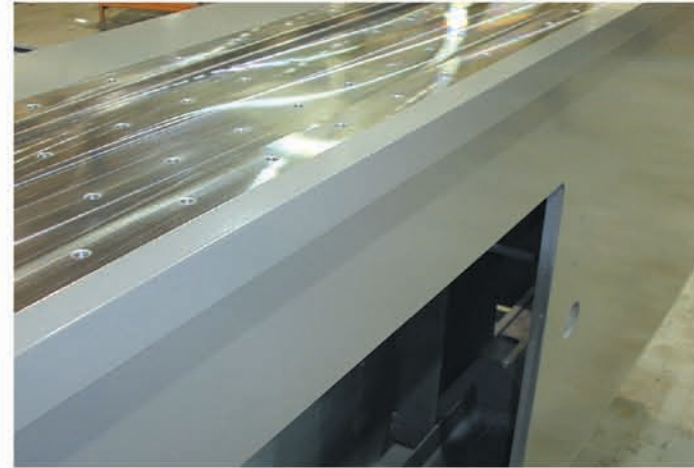


Exceeding Industry Standards in Machine Reliability

Fiber Laser

The CL-900 Fiber laser is from one of the industry leading makers of fiber laser technology. The fiber laser is designed to operate in industrial manufacturing environments. It produces a superior beam quality that contributes to fast cutting in light gauge materials while at the same time providing a wall-plug efficiency of over 30%.

Fiber lasers use single emitter semiconductor diodes as the light source to pump the active fibers through a solid state, fiber-to-fiber design that does not require mirrors or optics to align or adjust. Since the diodes have an estimated life of over 100,000 hours, it is virtually maintenance-free.



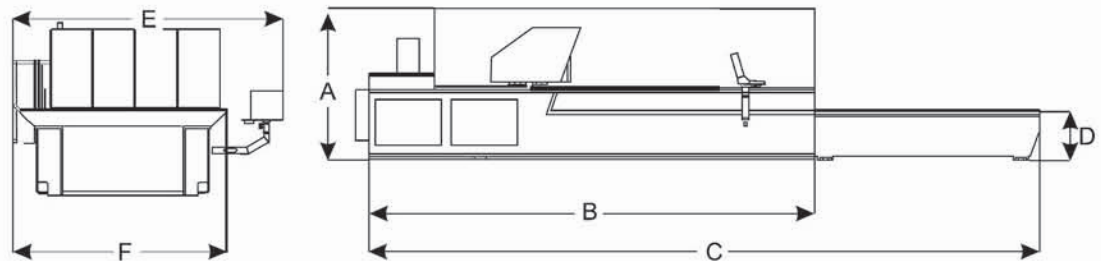
Heavy Construction

With lasers, as with all machines, a heavy frame is more durable, more stable and more accurate. The **CINCINNATI** CL-900 is constructed out of $\frac{3}{4}$ " to $1\frac{1}{2}$ " steel plate. This makes it the heaviest, most robust machine available today. It is built to stand up to years of rigorous use in the most demanding environments. Steel plate is cut, formed, welded, stress relieved and precision machined to make an extremely rigid base for all laser machine components. The separate load frame is made of $1\frac{1}{2}$ " plate steel. It is designed to withstand the abuse of loading and unloading heavy materials without affecting the cutting process. Historically, the robust construction of **CINCINNATI** lasers leads to a high resale value, making the cost of ownership less than you might expect.

Standard Features and Specifications

- ☑ Linear Motor Drive Systems
- ☑ Dual Pallet Configuration
- ☑ Compressed Air Dryer/Filter
- ☑ Breakaway Autofocus Head with Magnetic Coupling
- ☑ Programmable High Pressure Assist Gas (500 psi Maximum)
- ☑ 5", 7½" and 10" lens capability
- ☑ Tactile Foot
- ☑ Industrial Grade, Touchscreen HMI
- ☑ USB port on HMI
- ☑ Ethernet Network Interface
- ☑ Webcam to view the cutting process
- ☑ Dynamic Power Control (DPC™)
- ☑ Rapid Pierce
- ☑ Box Cutting Capability
- ☑ Custom Macros
- ☑ Inch/Metric Programming
- ☑ Quick-Adjust Material Clamps
- ☑ Scrap Removal System
- ☑ Fume Collection Plenum
- ☑ Replaceable Material Supports
- ☑ Extended Lube Interval Bearings
- ☑ Remote Operator Station
- ☑ Safety Enclosure
- ☑ Safety Lights

Machine Dimensions	Table Size	
	60" x 120" (1,524 mm x 3,048 mm)	78.5" x 157.5" (2,000 mm x 4,000 mm)
A	97" (2,464 mm)	97" (2,464 mm)
B	268" (6,807 mm)	308" (7,823 mm)
C	399" (10,135 mm)	479" (12,166 mm)
D	39" (911 mm)	39" (911 mm)
E	158" (4,013 mm)	178" (4,521 mm)
F	125" (3,175 mm)	145" (3,683 mm)
Weight	35,000 pounds (16,000 kg)	48,000 pounds (22,000 kg)



Due to continuing product development program, engineering data and dimensions are subject to change without notice.
 Certified foundation plans will be furnished for each installation.

Options

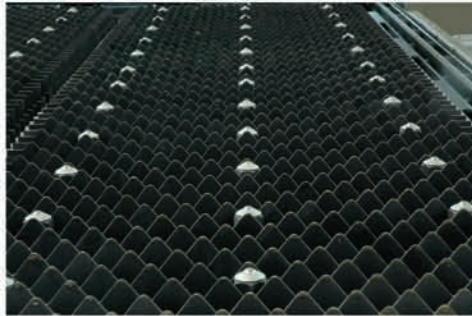
Opposite Hand Configuration

Selecting a “mirror image” configuration enables one operator to control two machines from a single location. This increases productivity. In some cases, the opposite hand layout allows the laser to be placed in areas that would otherwise not accommodate a machine.

Ball Transfer Load Station

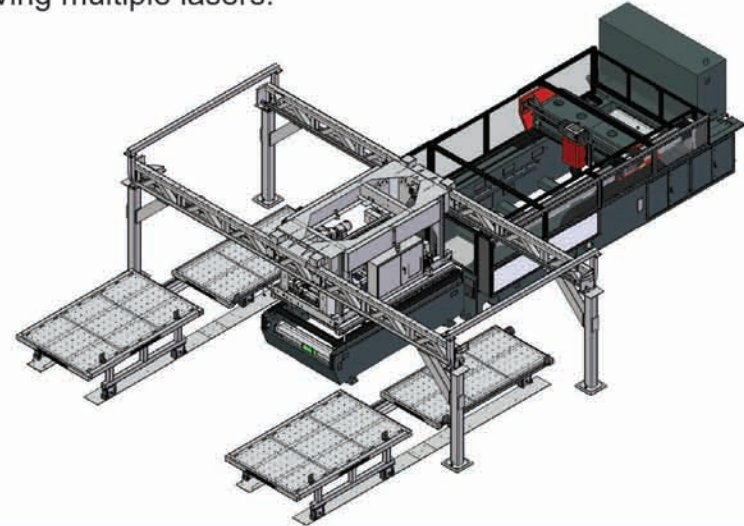
Sheet or plate can be easily rolled on or off the pallet grid with ball transfers to speed material handling in the load/unload area without scratching parts.

Electrically operated ball transfers are mounted on pipe stands, allowing them to pass through the pallet grids. Ball transfers are electronically interlocked to prevent improper or unsafe motion.



Modular Material Handling Systems

CINCINNATI® supplies custom material handling solutions with common, proven parts. The MMHS building blocks can be combined to make a simple load/unload system or expanded to make a full system with material storage, serving multiple lasers.



Fume Blower

A high-volume blower, with self contained motor drive, efficiently exhausts fumes from the entire cutting area of the laser.



Support Services

Operator Training

Laser Operator Training Programs at our facility help ensure that each customer achieves maximum productivity from their investment. Two operator classes are provided with each laser, including classroom and hands-on instruction for proper and safe operation.

The **CINCINNATI** program includes:

- ☑ Introduction to the Laser System
- ☑ Fundamentals of Laser Operation
- ☑ Start-Up and Shutdown Procedures
- ☑ Operation of Machine Controls
- ☑ Programming and Machine Operation
- ☑ Hands-On Operation
- ☑ Maintenance Basics
- ☑ Safety Awareness



Advanced Application Training

CINCINNATI provides on-site advanced application training after installation of your laser. It is to ensure that our customers understand all the capabilities of their CL-900, its ease of programming and its operating features. Other training is available, including ongoing application assistance and software classes.

Programming Training

Each laser comes with a comprehensive two day training class on the **CINCINNATI** Laser Programming and Nesting Software.

Comprehensive Service

CINCINNATI provides single-source responsibility for installation, service and parts, to ensure optimum performance and trouble-free operation. An extensive network of factory service representatives are located throughout North America.

CL-900 Maintenance Training

CINCINNATI offers basic and advanced maintenance training using classroom instruction and hands-on review of the information presented. The Frame Class topics include computer interfacing, software updating and reloading, component function and trouble shooting. One Frame Class is included with each laser.

Fast Replacement Parts

An extensive inventory of replacement parts is stocked, ensuring fast response. In-stock replacement parts are shipped within hours of your call, reducing downtime. The Parts Department is available weekdays from 8:00 a.m. until 8:00 p.m. Eastern Time. Our rapid-response program enables customers to contact **CINCINNATI** after hours and on weekends for placing emergency orders or for obtaining technical or service assistance.

Safety

Every laser designed by **CINCINNATI** meets all applicable requirements of Federal Regulation 21CFR, Subpart J, as a Class IV laser product, at the date of manufacture, and applicable sections of American National Standard Institute Z136.1 for the safe use of lasers. Hazards inside the laser enclosure are guarded against unauthorized access. Clearly visible laser signs and symbols warn personnel in the area that a laser beam may exist within protected enclosures. Interlocks, enclosure and redundant deactivation systems guard against accidental access to the beam. A comprehensive operator's manual provides instructions for safe operation.



Cincinnati Incorporated maintains a modern industrial facility where product development, manufacturing, sales and support are combined to assure complete customer service and satisfaction. Customers are always welcome to visit the Customer Productivity Center and watch parts being cut or discuss unique applications with Product Specialists to verify production efficiency and potential savings. Cincinnati Incorporated's regionally based, factory trained, service representatives are also here to support you. They can offer assistance with routine repairs and preventive maintenance programs for all products. Service technicians are backed by a factory based technical support group and the same engineering staff that designed your equipment. Each serviceman receives regular training and updates to guarantee the latest information is available to you. By using factory trained service personnel, you are assured of getting the best quality of repairs and maintenance in the industry.



For the latest information on all CINCINNATI® products, please visit www.e-ci.com.



CINCINNATI®

C I N C I N N A T I I N C O R P O R A T E D

Box 11111, Cincinnati, OH 45211

Phone: (513) 367-7100

Fax: (513) 367-7552

E-mail: info@e-ci.com

Website: www.e-ci.com