

*Fiber laser  
cutting  
machine*

# PHOENIX FL

DYNAMIC, VERSATILE LASER CUTTING



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The Phoenix fiber laser combines cost efficiency, dynamic laser cutting, advanced automation solutions and LVD's intuitive Touch-L control. This all-around system offers fast processing of a wide variety of material types and thicknesses.



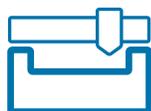
## HIGH PROCESSING SPEEDS

Fast processing speeds are achieved thanks to the sound beam quality and increased beam absorption of the 1 m wavelength.



## CUTTING QUALITY

With an efficient fiber laser source and a state-of-the-art cutting head, the Phoenix delivers excellent cut quality in a wide variety of material types and thicknesses.



## RIGID FRAME DESIGN

The welded steel frame construction of the compact Phoenix minimizes deformation caused by high acceleration, ensuring overall machine accuracy.



*A machine that perfectly balances performance and affordability.*



## AUTOMATIC SHUTTLE BED

The machine maximizes uptime with an integrated shuttle table system that allows one table to be loaded/unloaded while cutting on the other table. Table changeover is complete in just 35 seconds.



## INTEGRATED CONTROL AND DRIVE SYSTEM

A Siemens control and drive system guarantee the highest reproduction of programmed contours at fast processing speeds.



## INTUITIVE CONTROL

The 19" Touch-L control is user-friendly: operators of all skill levels can interact easily with the Phoenix. Set ups are fast and uncomplicated.

# ADVANCED AUTOMATION OPTIONS

Modular automation options further increase the productivity and throughput of the Phoenix.

## FLEXIBLE AUTOMATION (FA-L)

This high-speed, automatic load/unload system eliminates manual sheet handling and increases machine productivity and efficiency. It can unload a processed sheet and load the next sheet onto the shuttle bed in just 40 seconds. FA-L is designed to keep pace with today's high-speed fiber laser cutting systems and can work in concert with an existing warehouse. The system handles sheets as large as 120" x 60" (3050 x 1525 mm) and material thicknesses up to 3/4" (20 mm) with a maximum pallet capacity of 6,000 lbs. (3000 kg). It is ideal for large volume applications with common material type, thickness and size and for handling oversized or heavy workpieces.

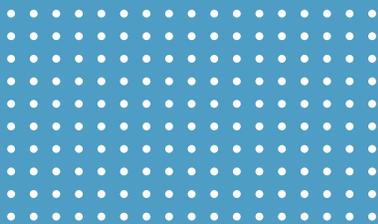
*The FA-L system can unload a processed sheet and load the next one in just 40 seconds.*



## COMPACT TOWER (CT-L)

The Compact Tower is a material storage and retrieval tower for 4, 6 or 10 pallets. It handles 120" x 60" (3050 x 1525 mm) sheets with material thicknesses up to 1" (25 mm) and has a storage capacity of 6,000 lbs. (3000 kg) per shelf. The CT-L unit facilitates unmanned, "lights out" production.

The Compact Tower enables automatic loading, unloading and storage of finished parts.



## Key automation benefits

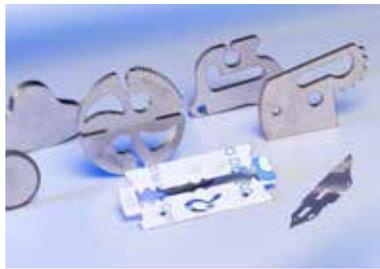


- Maximize productivity and eliminate unproductive time
- Continuous production for "lights out" manufacturing
- Fully automatic loading and unloading during production cycle
- Efficient handling of workpieces
- Easy to use, intuitive 19" touch screen control Touch-A
- Highly reliable automated production
- High flexibility to process a variety of material types and thicknesses (CT-L)

# RELIABILITY & PERFORMANCE

## EFFICIENT FIBER LASER SOURCE

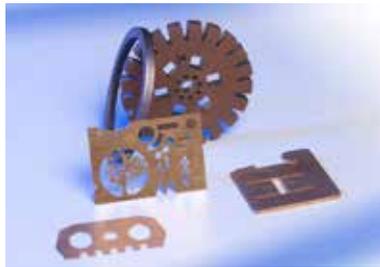
The fiber laser source offers the advantages of low operating costs and low maintenance. It contains no moving parts, glasswork or mirrors and requires no warm up time in stand-by mode. The fiber laser delivers reliable and consistent power for thousands of hours, has long service intervals and minimal maintenance costs.



Stainless steel



Aluminum



Copper



Steel

## VERSATILE MATERIAL CAPABILITIES

The Phoenix is an all-around performer. It has the flexibility to expertly cut standard steels and non-ferrous materials such as copper and brass in a range of thicknesses, maintaining the same high quality.



## FLEXIBLE MACHINE

The Phoenix delivers excellent cut quality thanks to an advanced optical design featuring motorized adjustment of focus position and focus diameter.

In order to maximize productivity in every material thickness, focus position and diameter are automatically controlled and adjusted by the CNC. This independent control combined with the rapid focus adjustment on the workpiece makes the Phoenix the most flexible fiber laser machine.

# SPECIFICATIONS

## PHOENIX FL 3015

### MACHINE SPECIFICATIONS

Maximum sheet size	120" x 60" (3050 x 1525 mm)
X-axis travel	125" (3185 mm)
Y-axis travel	61" (1560 mm)
Z-axis travel	5.11" (130 mm)
Maximum sheet weight on table	Approx. 2000 lbs (900 kg)
Table changeover time	35 sec.
Maximum positioning speed	5,511"/min (140 m/min)
Repetitive accuracy	+/- 0.001" (0.025 mm)
Positioning accuracy*	+/- 0.002" (0.050mm)
Nozzle changer	optional

### MACHINE DIMENSIONS (excluding light guards, filter and chiller)

Length	29 ft (8825 mm)
Width	8,4 ft (2560 mm)
Height (access door closed)	8,4 ft (2560 mm)
Approximate weight	Approx. 26,500 lbs (12,000 kg)

### LASER SPECIFICATIONS

Type	IPG
Laser power	3 kW - 4 kW - 6 kW - 8 kW - 10 kW
Power stability	± 2 %
Wave length	1 µm

### AUTOMATION OPTIONS

	COMPACT TOWER - CT-L	FLEXIBLE AUTOMATION - FA-L
Maximum sheet dimensions	120" x 60" x 1.0" (3050 x 1525 x 25 mm)	120" x 60" x 3/4" (3050 x 1525 x 20 mm)
Minimum sheet dimensions	36" x 36" x 0.020" (1000 x 1000 x 0.5 mm)	36" x 36" x 0.020" (1000 x 1000 x 0.5 mm)
Maximum weight/pallet	6000 lbs (3000 kg)	6000 lbs (3000 kg)
Maximum height/pallet	9.5" (240 mm) inclusive wooden pallet	9.5" (240 mm) inclusive wooden pallet
Footprint (L x W)	30 ft x 25 ft (9600 x 7700 mm)	46 ft x 23 ft (14200 x 6900 mm)
Height of the system	-	11 ft (3230 mm)
CT-L 4 pallets	14 ft (4100 mm)	-
CT-L 6 pallets	17 ft (4940 mm)	-
CT-L 10 pallets	22 ft (6620 mm)	-

Specifications subject to change without prior notice.

\* Achievable workpiece accuracy depends on the type of workpiece, pre-treatment and sheet size, as well as other variables. According to VDI/DGQ 3441.

## DANGER



Laser Radiation.  
Avoid eye or skin exposure to  
direct or scattered radiation.

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Maximum power 12000 Watts Ytterbium Laser  
Maximum power 1mW 600-700 nm

Class IV Laser Product

# SOFTWARE INTEGRATION

PHOENIX

FL-3015



LVD's database-driven CADMAN® Suite software integrates sheet metalworking processes, production control, communication and management. It provides users with real-time data to make informed choices, enabling maximized throughput.

CADMAN-L is the software tool for LVD's laser cutting machines. Initiated from CADMAN-JOB, CADMAN-L imports the correct unfolded flat parts from CADMAN-B then nests and processes them automatically to the corresponding work orders. It is fully integrated with the Touch-L control.

Touch-L employs a 19" touch screen and icon-driven user interface. It incorporates a part programming and nesting feature allowing users to import drawings directly into the control, applying cutting technology and nesting sheets at the machine. Users can easily add remnant cutting lines, change type and position of lead-ins and add a micro-joint if needed.

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