

*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-round system offers fast processing of a wide variety of material types and thicknesses.



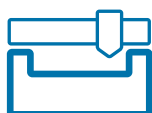
HIGH PROCESSING SPEEDS

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



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 minimises deformation caused by high acceleration, ensuring overall machine accuracy.



A machine that perfectly balances performance and affordability.



AUTOMATIC SHUTTLE BED

The machine maximises 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. Setups are fast and uncomplicated.

ADVANCED AUTOMATION OPTIONS

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

FLEXIBLE AUTOMATION (FA-L)

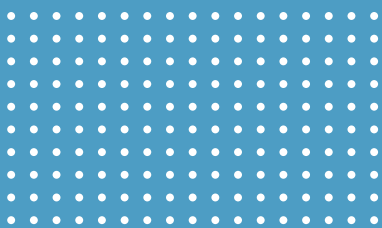
This high-speed, automatic load/unload system eliminates manual sheet handling and increases machine productivity and efficiency. It can unload a processed sheet and load the next sheet onto the shuttle bed in just 40 seconds. FA-L is designed to keep pace with today's high-speed fiber laser cutting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

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COMPACT TOWER (CT-L)

The Compact Tower is a material storage and retrieval tower for 4, 6 or 10 pallets. It handles 3050 x 1525 mm sheets with material thicknesses up to 20 mm and has a storage capacity of 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



- Maximise productivity and eliminate unproductive time
- Continuous production for "lights out" manufacturing
- Fully automatic loading and unloading during production cycle
- Efficient handling of workpieces
- User-friendly, 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, glass-work 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



Aluminium



Copper



Steel

VERSATILE MATERIAL CAPABILITIES

The Phoenix is an all-round 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 motorised adjustment of focus position and focus diameter.

In order to maximise productivity in every material thickness, focus position and diameter are automatically controlled and adjusted by the CNC. This makes the Phoenix the most flexible fiber laser machine.



SPECIFICATIONS

PHOENIX FL 3015

MACHINE SPECIFICATIONS

Maximum sheet size	3050 x 1525 mm
X-axis travel	3185 mm
Y-axis travel	1560 mm
Z-axis travel	130 mm
Maximum sheet weight on table	750 kg
Table changeover time	35 sec.
Maximum positioning speed	140 m/min.
Repetitive accuracy	± 0.025 mm
Positioning accuracy*	± 0.050 mm
Nozzle changer	optional

MACHINE DIMENSIONS (excluding light guards, filter and chiller)

Length	8825 mm
Width	2560 mm
Height (access door closed)	2550 mm
Approximate weight	13.000 kg

LASER SPECIFICATIONS

Type	IPG			
Laser power	3 kW	4 kW	6 kW	
Maximum cutting capacity	mild steel	20 mm	20 mm	25 mm
	stainless steel	12 mm	15 mm	25 mm
	aluminium	12 mm	15 mm	30 mm
	copper	6 mm	8 mm	12 mm
	brass	6 mm	8 mm	12 mm
Power stability	± 2 %			
Wave length	1 µm			

AUTOMATION OPTIONS

COMPACT TOWER - CT-L

FLEXIBLE AUTOMATION - FA-L

Maximum sheet dimensions	3050 x 1525 x 20 mm	3050 x 1525 x 20 mm
Minimum sheet dimensions	1000 x 1000 x 0,5 mm	1000 x 1000 x 0,5 mm
Maximum weight/pallet	3000 kg	3000 kg
Maximum height/pallet	240 mm	240 mm
	inclusive wooden pallet	inclusive wooden pallet
Footprint (L x W)	9600 x 7700 mm	14200 x 6900 mm
Height of the system	-	3230 mm
CT-L 4 pallets	4100 mm	-
CT-L 6 pallets	4940 mm	-
CT-L 10 pallets	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.

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 maximised 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.

LASER

PUNCH

BEND

INTEGRATE

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