



LASER CUTTING MACHINES

SIRIUS SERIES



Efficient Laser Processing

Sirius, LVD's latest introduction to the CO₂ laser cutting systems market, is designed to provide cost-efficient processing of parts at optimal speed, delivering fast, reliable laser cutting performance that is both high quality and highly affordable.

With a combined axis speed of 3939 in/min, high cutting speeds can be achieved in thin material. High-speed processing combined with the power of the laser and the acceleration of the machine provide dynamic thin sheet cutting.

Sheet referencing is automatically handled with a built-in capacitive height sensor which maintains a constant distance between the head and the plate, compensating for any unevenness in the material.

Sirius is designed with a modular construction, permitting the user to select the configuration that works best for the application and

budget. As a standard unit, the laser cutting system features integrated shuttle tables, which maximize uptime by allowing one table to be loaded while the machine is cutting on the other table. Table change time is under 30 seconds.

This gantry-style laser system is also offered in a Plus model. Sirius Plus is enhanced with additional features and is automation-ready. It can be equipped with LVD's Compact Tower (CT-L) system for fully automated loading, unloading and storage of raw material and finished parts.

For high quality, highly reliable laser processing with automation ready features in a cost-effective package, Sirius is your solution.



Sirius 3015

Sirius

- Compact, small foot-print, gantry-style CO₂ laser cutting system
- Fast processing of thin materials
- Highly rigid design with precision drives ensures high accuracy cutting
- Integrated shuttle table changeover is under 30 seconds
- Low operation and maintenance costs
- Equipped with a single system Fanuc laser package, incorporating laser source, control, motors and AC drive amplifiers

- n Fanuc CNC control features large 15" Touch Screen
- Features an extensive database of cutting technology for processing a wide range of materials
- Integrated exhaust system and cooling unit
- Pull out scrap containers



Sirius features an integrated exhaust system and cooling unit.

- Offers a choice of 2500 W or 4000 W laser source
- Enhanced features: NC Focus, Process Control, and automatic shut down
- Optional Compact Tower (CT-L) system for Sirius Plus
- Optional CADMAN-L 3D software maximizes flexibility and productivity
- Process Control to automatically sense piercing times and detect and control plasma when cutting stainless steel and aluminium. This feature maximizes processing time and minimizes part damage due to loss of cut.
- Air/Oil Spray device to safely disperse splatter and lubricate the sheet when processing thicker materials, ensuring part quality is maintained



Maximum Utilization

Sirius Plus can be equipped or retrofitted with a Compact Tower.

The Compact Tower is a fully automated unit designed for high production requirements. It uses minimal floor space, is easily accessible, and provides the ultimate cell environment for continuous, uninterrupted work flow.

The CT-L system offers:

- Simple, compact design
- High flexibility to process a high volume of dissimilar parts
- Highly reliable automated production
- Continuous production for "lights out" manufacturing
- Fully automatic loading and unloading during production cycle
- Safe, efficient handling of workpieces





Sirius 3015 Plus with Compact Tower



Consistently Accurate Cutting



Quick-change, self-centering lens cartridges



Integrated laser source and control

Sirius Series models are engineered to provide consistently high-quality processing results in a system that is easy to set-up and operate.

- A standard laser cutting head accommodates a 5-inch or 7.5-inch quick-change lens for fast changeover and minimal set-up. These water-cooled quick-change lenses can be installed or exchanged very easily, using a self-centering system. Lens calibration is programmable and quick to achieve.
- A high-pressure cutting head delivers exceptionally clean cuts. A crash-protection system protects the head from damage after collision with the workpiece.

- A total power control feature automatically adjusts the laser power in relation to the cutting speed, ensuring an optimal cut at every contour width and minimizing the heat-affected zone.
- The machine's edge function feature processes sharp corners cleanly, particularly in thicker materials.

LVD's Sirius offers the proven reliability of Fanuc integrated laser and CNC control, providing the user full control over the cutting process.



Full Cutting Control

- The RF excited fast axial flow CO₂ laser, CNC control, system drives and motors are fully integrated, ensuring high reliability, as well as low operating and maintenance costs.
- The integrated Fanuc PC-based control provides perfect reproduction of programmed contours, producing acute angles at high speed. The laser power is matched to the vectorial



Integrated Fanuc package

speeds to achieve a constant cut width and a small heat-affected zone.

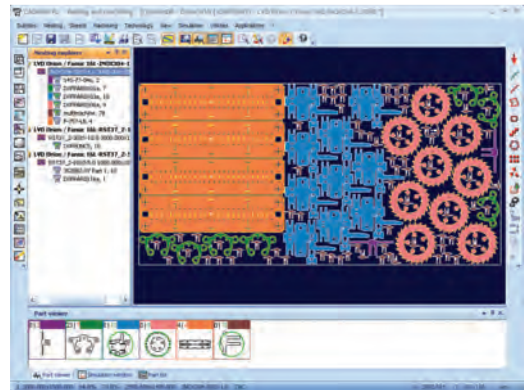
- All parameters, diagnostic and start-up procedures are conveniently displayed on the touch screen.
- The 32-bit control features powerful mathematical capabilities and an extensive material library.
- Sirius is available with a powerful 2.5 kW or 4 kW laser source.

CADMAN®

Robust Offline Software

Optional CADMAN-L 3D offline programming software provides a comprehensive laser cutting CAM package, featuring:

- Flexible lead-in/lead-outs for every kind of contour
- Advanced common line cutting
- Collision avoidance and automatic cutting sequence
- Complete flexibility to manually cut and nest laser parts
- DXF, DWG, IGES, SAT, MI file importation
- Automatic or interactive determination of cutting sequences
- Interactive or optional automatic nesting of different parts and shapes
- High-speed communications via Windows®, networking

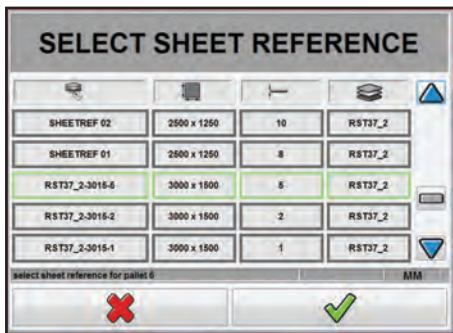


Interactive or automatic nesting

Graphical User Interface

Touch-L, a touch screen graphical user interface, provides the ease of LVD's Intelli-Touch user interface technology so both routine and complex operations can be quickly and efficiently accomplished at the control with minimal operator input.

Material Handling & Storage



Touch screen graphical user interface for the CT-L system provides easy and intuitive step by step information for loading, unloading and storage.

Automation further expands the flexibility and productivity of a Sirius Plus laser cutting system.

Compact Tower

For the ultimate in automated laser processing, LVD's optional Compact Tower system creates a productive, flexible manufacturing cell capable of operating "lights out."

The tower system, working in concert with the material handling unit, provides full capabilities for loading and unloading, and includes a shelving unit for storing raw material and finished parts.

The addition of automation provides fast, efficient processing of materials for continuous, uninterrupted workflow.

A graphical user interface simplifies programming and makes operation of the automated system easy and intuitive.

■ Designed as affordable mid-level automation, the space-saving system provides increased productivity by allowing optimal

material flow and unattended operation with uninterrupted processing of high quality laser cut parts.

- The CT-L system provides full capabilities for loading, unloading, and storage of raw material and finished parts.
- Automated material handling system provides unmanned, "lights out" production in a compact cell environment.
- LVD's tower system handles sheets as large as 120" x 60" and material thicknesses up to 0.750" with a maximum load/unload pallet storage capacity of 5500 lbs.
- The CT-L system is offered in three configurations: 4-pallet, 6-pallet and 10-pallet units.

Compact Tower System

Pallet construction on the CT-L is designed for compact set-up and convenient forklift manipulation.



Job change over cycle:

- Previous job in the joblist finishes.
- The completed pallet of processed parts is moved from the unloading station to the intermediate station.
- An empty unload pallet is moved from the tower into the unload station.
- The empty pallet from the loading station is then moved into the free space created from the previous step.
- A full load pallet is then moved from the tower into the loading station.
- Next job in the joblist commences.

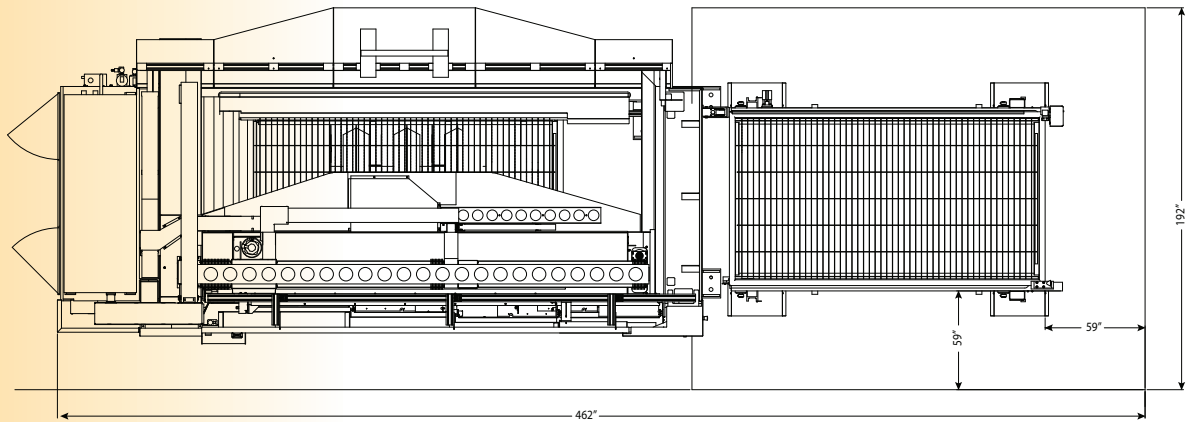
In this manner, the Compact Tower continues delivering material to the machine and evacuating skeletons.

The operator can choose to evacuate or leave the pallet in the intermediate station. The system will automatically move the full unload pallet to the free space available.

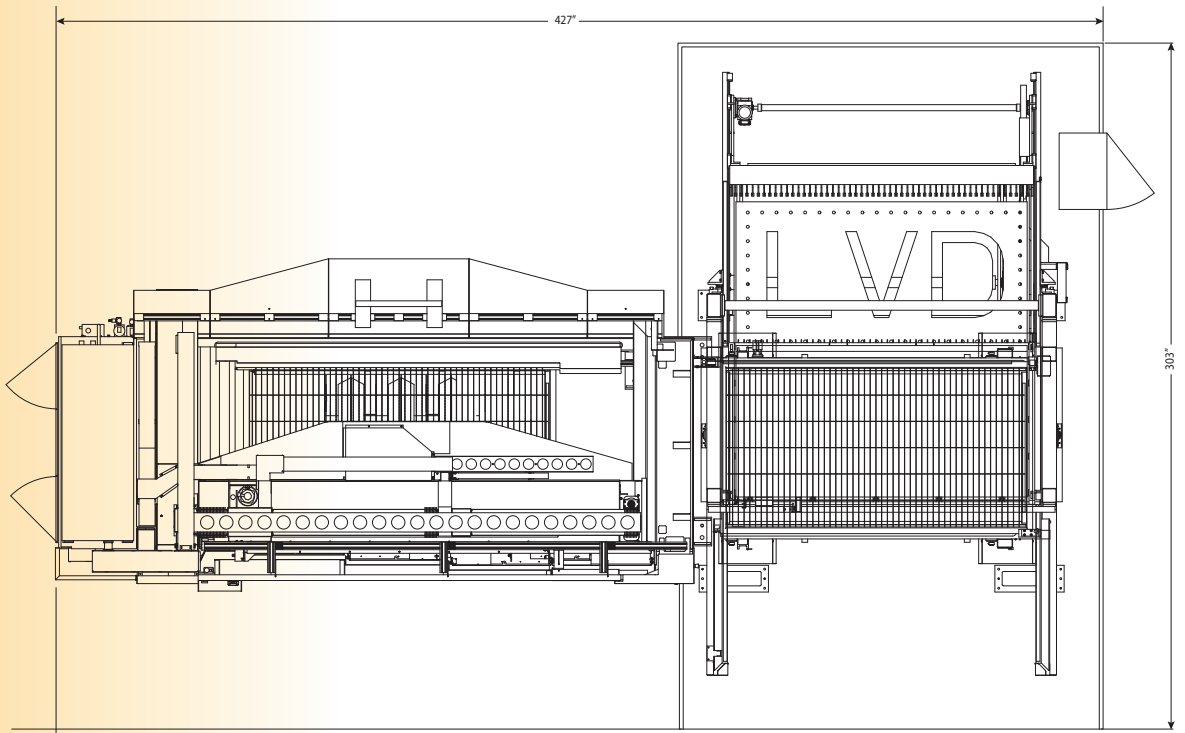


Sirius 3015 Plus with Compact Tower

Sirius 3015/Sirius 3015 Plus



Sirius 3015 Plus with Compact Tower



Machine	Sirius 3015	Sirius 3015 Plus
Max. sheet size	120" x 60"	120" x 60"
Max. sheet weight on table	1598 lbs	1598 lbs
X-axis	121"	121"
Y-axis	61"	61"
Z-axis	3" upper table 9" lower table	7"
Max. positioning speed X-Y	3939"/min	3939"/min
Z-axis	1181"/min	1181"/min
Repetitive accuracy	± 0.0008"	± 0.0008"
Positioning accuracy ⁽¹⁾	± 0.002"	± 0.002"
Laser		
Type	Fanuc HF excited CO ₂ laser	
Laser Power (± 2%)	2500 W	4000 W
Range	100-2500W	100-4000W
Max. peak power	2700W	5000W
Output Stability	± 1%	± 2%
Wave Length	10,6 μm	
Pulse Frequency	5 Hz – 2000 Hz	
Laser Gas	10 l/hour	
Cooling Water	Sealed circuit	
Material Capacities	2500 W	4000 W
Max. sheet thickness:		
Steel	5/8"	3/4"
Stainless steel (N ₂)	3/8"	1/2"
Aluminum	1/4"	3/8"
General Specifications (For stand alone machines)		
Machine dimensions (excluding filter and chiller)	Sirius 3015	Sirius 3015 Plus
L	462"	462"
W	192"	192"
H	86"	86"
Sirius with Compact Tower		
Max. sheet dimensions	120" x 60" x 0.787"	
Min. sheet dimensions	39" x 39"	
Max. weight of pallet	6613 lbs	
Max. height of pallet	9.4" including pallet	
Footprint		
L	427"	
W	303"	
Height of unit:		
4-pallet:	161"	
6-pallet:	194"	
10-pallet:	260"	



(1) Achievable workpiece accuracy depends on the type of workpiece, pre-treatment and sheet size, as well as other variables. According to VDI/DGQ 3441. Specifications subject to change without prior notice.

HEADQUARTERS

Strippit Inc.

12975 Clarence Center Rd.
USA-AKRON NY 14001
UNITED STATES
Tel. + 1 716 542 4511
Fax + 1 716 542 5957
e-mail: marketing@strippit.com

LVD Company n.v.

Nijverheidslaan 2
B-8560 GULLEGEM
BELGIUM
Tel.+ 32 56 43 05 11
Fax + 32 56 43 25 00
e-mail: marketing@lvd.be

JOINT VENTURES

LVD-HD

Huangshi City,
Hubel Province, China

SUBSIDIARIES*

LVD BeNeLux nv

Gullegem, Belgium

LVD do Brasil Ltda.

Joinville, Brazil

LVD GmbH

Lahr, Germany

LVD Italia s.r.l.

Parma, Italy

LVD Korea

Inchon City, Korea

LVD Ltd.

Oxfordshire, United Kingdom

LVD Malaysia Sdn Bhd

Shah Alam, Malaysia

LVD Polska Sp. z.o.o.

Kedzierzyn-Kozle, Poland

LVD S2/S3

Tornala, Slovakia

LVD s.a.

Raismes, France

LVD-Strippit Shanghai Co. , Ltd.

Shanghai, China

LVD SWE-NOR A/S

Oslo, Norway

LVD Thailand Limited

Bangkok, Thailand

Magal LVD India Pvt. Ltd

Bangalore, India

P.T. LVD Center

Jakarta, Indonesia

**For full address details of your local subsidiary or agent, or to download the latest literature, please visit our website:*

www.lvdgroup.com