



# Sirius Series

LASER CUTTING MACHINES



[www.lvdgroup.com](http://www.lvdgroup.com)

Sheet Metalworking, Our Passion, Your Solution

# SIRIUS SERIES Efficient Laser Processing

The Sirius laser cutting system is designed to provide cost-efficient processing of parts at optimal speed. By delivering fast, reliable laser cutting performance, Sirius thrives in demanding laser cutting environments with a higher productivity expectation. Sirius offers an ideal price-to-performance ratio without sacrificing quality.

- Compact, small footprint gantry-style CO<sub>2</sub> laser cutting system
- Intuitive LVD Touch-L control system
- Highly rigid design with precision drives ensures high accuracy cutting
- Low operation and maintenance costs
- Also offered in an automation-ready *Plus* model, with enhanced features



Sirius 3015 Plus

## Sirius

- Integrated **shuttle table changeover** is under 30 seconds
- Equipped with a single system **Fanuc laser package**, incorporating laser source, control, motors and AC drive amplifiers
- Fanuc 31i-L CNC control features **19" Touch Screen**
- Featuring an **extensive database** of cutting technology for processing a wide range of materials
- Integrated exhaust system and cooling unit
- **Automatic** shut down and start-up
- Offered in a choice of 2500 W or 4000 W **laser sources**
- **Adaptive laser cutting system (ALC)** as standard on 4kW models

# KEY FEATURES

## Reach Higher Productivity

Ensuring high reliability,  
with low operating and  
maintenance costs

### ACCESSIBLE OPERATING ENVIRONMENT

Sirius's sliding door design provides excellent visibility and access to the 'long' side of the cutting zone. Making access to cut parts and the laser cutting head simple and easy.

### TOUCH SCREEN CONTROL

LVD's 19" Touch-L touch screen graphical user interface allows any level of user to easily interact with the machine. The intuitive Touch-L interface keeps operator input to a minimum regardless of the application. Set ups are fast and uncomplicated.

### FAST ART TO PART

LVD's Touch-L control also enables operators to take a DXF-file from the network or a USB-stick and apply cutting technology. Nest and cut the part with minimal input. Operators can easily add remnant cutting lines, change type and position of lead-ins and add a micro-joint if needed.



### ADAPTIVE LASER CUTTING (ALC)

ALC automatically optimises laser cutting performance and quality. Using a continuous feedback system to monitor the thermal cutting process ALC automatically adapts various cutting parameters in 'real-time' to provide up to a 10% increase in productivity whilst maintaining optimal part quality.

### CONSTANT BEAM LENGTH

Sirius features a constant beam length system that keeps the diameter of the laser beam constant and consequently always maintains a fixed focal point position. This results in higher cutting speeds and superior cut quality maintained over the entire working area.



Automatically increase productivity by up to  
10% without sacrificing quality



Intuitive and easy to use Touch-L

## KEY FEATURES

# Consistently Accurate Cutting

*Superior precision for laser  
cutting operations*



## CUTTING HEAD

LVD's in house designed and manufactured high-pressure cutting head delivers exceptionally clean cuts. A crash-protection system assures the head from damage after collision with the work piece. Integrated piercing sensors, plasma detection and NC focus system ensure smooth processing and minimal effort when switching between materials.

## INTEGRATED LASER & CONTROL PACKAGE

Sirius's RF excited fast axial flow Fanuc CO<sub>2</sub> laser, CNC control, system drives and motors are fully integrated, ensuring high reliability and low operating and maintenance costs.

## LOW RUNNING COSTS

Sirius's design, the efficiency of the latest generation Fanuc laser source and automatic power saving feature combine to give Sirius one of the lowest running costs of any machine in its class.

## OFFLINE PROGRAMMING

LVD's optional CADMAN® software package offers the ideal solution to quickly prepare and execute offline programs and integrate production processes for greater productivity.

**CADMAN®**

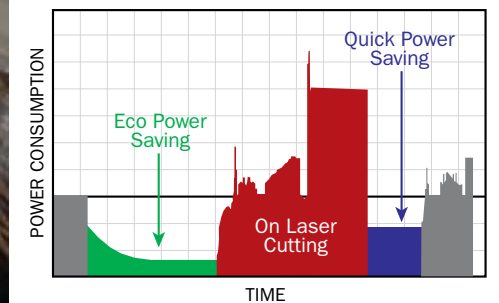
## NOZZLE CHANGER

Optional automated 10 station nozzle changer unit for added autonomy and flexibility.

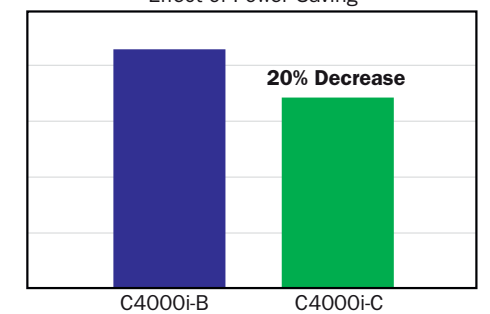


## AUTOMATED LASER FEATURES

- Total power control (TPC) ensures an optimal cut while minimizing the heat-affected zone
- Process Control optimizes processing time and minimizes part damage due to loss of cut
- NC Focus eliminates the need for operator intervention to adjust the focal position
- Air/Oil Spray device safely disperses splatter and lubricates the sheet when processing thicker materials, ensuring consistent part quality
- Automatic shut down
- Automated power saving feature reduces power consumption by up to 20%



Effect of Power Saving



# Modular Automation

## KEY FEATURES

*Enabling automated production from stored raw material to stacked finished parts*

## FLEXIBLE AUTOMATION (FA-L)

A new design automatic load/unload system eliminates manual sheet handling and increases machine productivity and efficiency. Designed to keep pace with today's high speed fiber and CO<sub>2</sub> laser cutting systems, the FA-L can unload a processed sheet and load the next sheet onto the shuttle table in just 40 seconds. The system handles sheets as large as 3050 x 1525 mm and material thicknesses up to 12 mm with a maximum pallet capacity of 3000 kg. It is ideal for large volume applications with common material type, thickness and size and the handling of oversized or heavy work pieces.

## COMPACT TOWER (CT-L)

The Compact Tower (CT-L) 4, 6 or 10 pallet provides full capabilities for loading, unloading, and storage of raw material and finished parts, enabling automated production from stored raw material to stacked finished parts. The CT-L system creates a productive, flexible manufacturing cell capable of operating "lights out".

The system handles sheets with material thicknesses up to 20 mm with a load/unload pallet storage capacity of 3000 kg. Pallet construction is designed for compact set up and convenient forklift manipulation.



Sirius 3015 Plus with Compact Tower

## KEY AUTOMATION BENEFITS

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



Automated load/unload – FA-L system

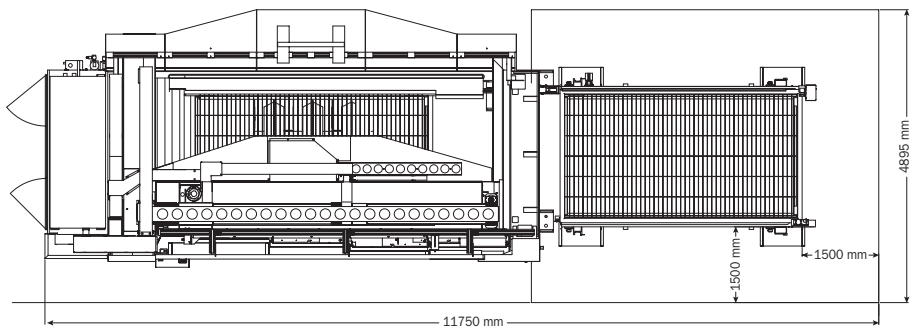


Easy to use 19" intuitive touch screen control

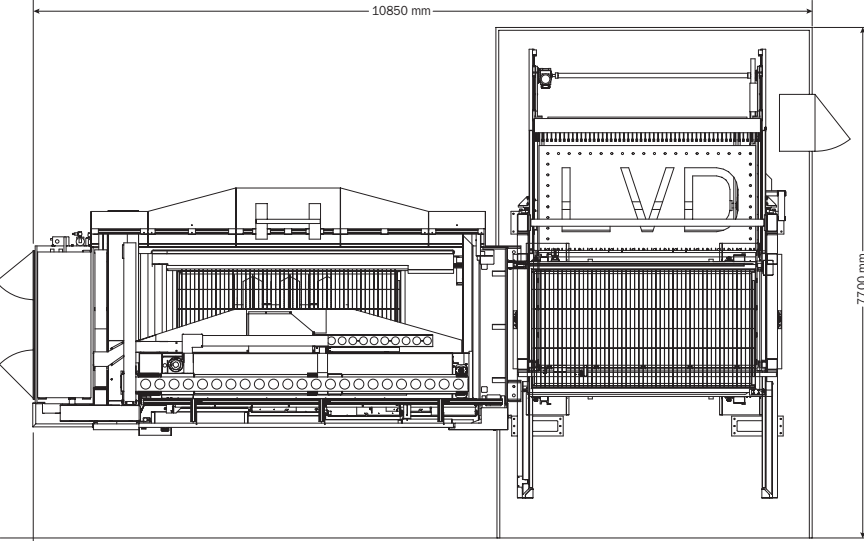
SIRIUS SERIES

# Technical Specifications

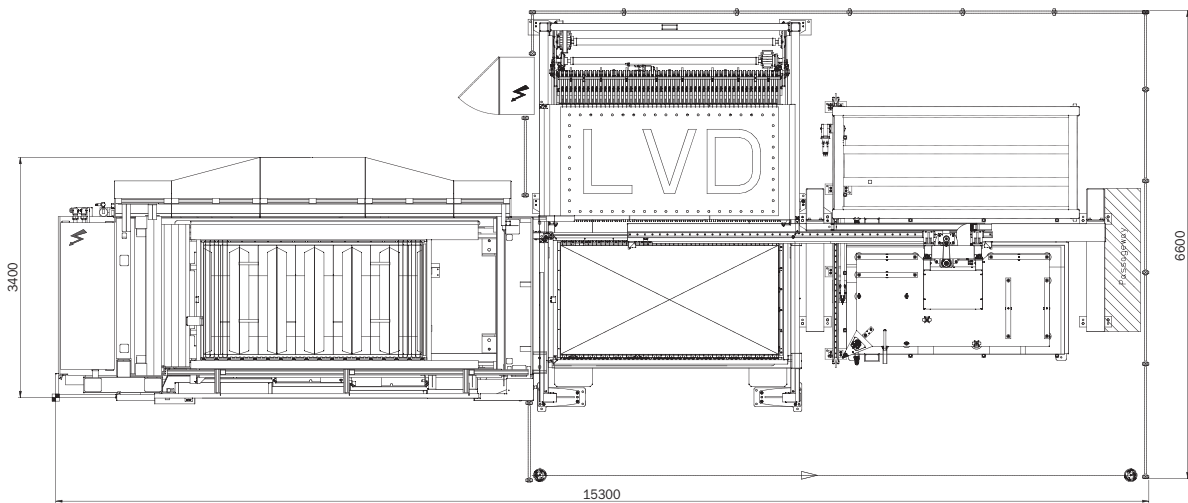
SIRIUS 3015/SIRIUS 3015 PLUS



SIRIUS 3015 PLUS WITH COMPACT TOWER (CT-L)



SIRIUS 3015 PLUS WITH FLEXIBLE AUTOMATION (FA-L)



| MACHINE                    | SIRIUS 3015    | SIRIUS 3015 PLUS |
|----------------------------|----------------|------------------|
| Max. sheet size            | 3050 x 1525 mm | 3050 x 1525 mm   |
| Max. sheet weight on table | 725 kg         | 725 kg           |
| X-axis                     | 3080 mm        | 3080 mm          |
| Y-axis                     | 1550 mm        | 1550 mm          |
| Z-axis                     | 250 mm         | 180 mm           |
| Max. positioning speed X-Y | 110 m/min      | 110 m/min        |
| Z-axis                     | 30 m/min       | 30 m/min         |
| Repetitive accuracy        | ± 0,025 mm     | ± 0,025 mm       |
| Positioning accuracy (1)   | ± 0,05 mm/m    | ± 0,05 mm/m      |

| LASER                             |                                        |           |
|-----------------------------------|----------------------------------------|-----------|
| Type                              | Fanuc RF excited CO <sub>2</sub> laser |           |
| Laser Power (± 2%)                | 2500 W                                 | 4000 W    |
| Range                             | 100-2500W                              | 100-4000W |
| Max. Peak Power                   | 2700 W                                 | 5000 W    |
| Output Stability                  | ± 1%                                   | ± 2%      |
| Wave Length                       | 10,6 µm                                |           |
| Pulse Frequency                   | 5 Hz – 2 kHz                           |           |
| Laser Gas                         | 10 l/hour                              |           |
| Cooling Water                     | Sealed circuit                         |           |
| Material Capacities               | 2500 W                                 | 4000 W    |
| Max. sheet thickness:             |                                        |           |
| Steel                             | 16 mm                                  | 20 mm     |
| Stainless steel (N <sub>2</sub> ) | 10 mm                                  | 15 mm     |
| Aluminum                          | 6 mm                                   | 10 mm     |

| GENERAL SPECIFICATIONS (FOR STAND ALONE MACHINES) |             |                  |
|---------------------------------------------------|-------------|------------------|
| Machine dimensions (excluding filter and chiller) | Sirius 3015 | Sirius 3015 Plus |
| L                                                 | 11750 mm    | 11750 mm         |
| W                                                 | 4895 mm     | 4895 mm          |
| H                                                 | 2200 mm     | 2200 mm          |

| SIRIUS WITH AUTOMATION     | CT-L                | FA-L                       |
|----------------------------|---------------------|----------------------------|
| Max. sheet dimensions (mm) | 3050 x 1525 x 20    | 3050 x 1525 x 12           |
| Min. sheet dimensions (mm) | 1000 x 1000         | 1000 x 1000 x 0,5          |
| Max. weight on pallet      | 3000 kg             | 3000 kg                    |
| Max. height on pallet      | 240 mm incl. pallet | 240 mm incl. wooden pallet |
| Footprint                  |                     |                            |
| L                          | 10850 mm            | 14800 mm                   |
| W                          | 7700 mm             | 6960 mm                    |
| Height of unit:            |                     | 3230 mm                    |
| 4-pallet:                  | 4100 mm             |                            |
| 6-pallet                   | 4940 mm             |                            |
| 10-pallet                  | 6620 mm             |                            |

(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

### **LVD Company nv**

Nijverheidslaan 2  
B-8560 GULLEGEM  
BELGIUM  
Tel. +32 56 43 05 11  
Fax +32 56 43 25 00  
E-mail: [marketing@lvd.be](mailto:marketing@lvd.be)

### **Strippit Inc.**

12975 Clarence Center Rd.  
USA-AKRON NY 14001  
UNITED STATES  
Tel. +1 716 5424511  
Fax +1 716 5425957  
E-mail: [marketing@strippit.com](mailto:marketing@strippit.com)

## JOINT VENTURES

### **LVD LVD-HD, Ltd.**

Huangshi City,  
Hubei 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 Ltd.**

Inchon City, Korea

### **LVD Malaysia Sdn Bhd**

Shah Alam, Malaysia

### **LVD Norway AS**

Oslo, Norway

### **LVD Polska Sp. z o.o.**

Kedzierzyn-Kozle, Poland

### **LVD Pullmax Ltd.**

Oxfordshire, United Kingdom

### **LVD S2/S3 s.r.o.**

Tornala, Slovakia

### **LVD s.a.**

Raismes, France

### **LVD-Strippit India Pvt. Ltd.**

Bangalore, India

### **LVD-Strippit Shanghai Co. Ltd.**

Shanghai, China

### **LVD-Pullmax AB**

Gothenburg, Sweden

### **LVD Thailand Ltd.**

Bangkok, Thailand

### **LVD Center P.T.**

Jakarta, Indonesia



In other countries LVD products are distributed by agents. For full address details of your local subsidiary or agent, please visit our website: [www.lvdgroup.com](http://www.lvdgroup.com)