

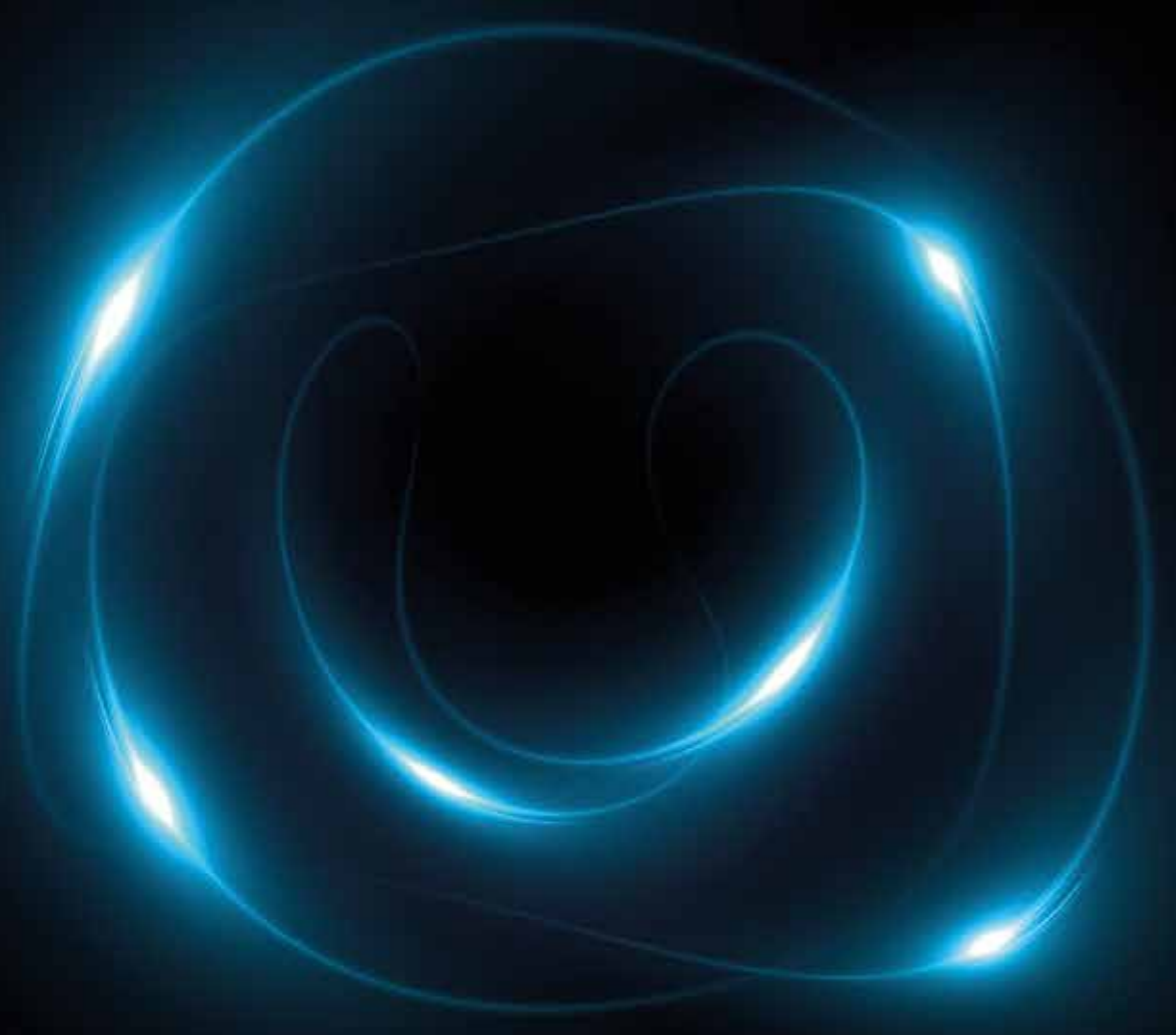


ENG

# CY2D



**CYLASER**  
FIBER LASER SYSTEMS



**100%**  
**ITALIAN**  
**PRODUCT**



Tomorrow's light travels only on fiber.  
It's something we've always known.











A territory with a consolidated technological background and the inventiveness of the Campana family are the ingredients of the birth of CYLASER, **the first company to apply fiber laser technology to the cutting of sheet metal in 2005**, thus gaining a substantial technological edge over the competition.

It is a lean and dynamic company that builds customised automated cutting, welding and bending systems and has a widespread sales network around the world.

# CYLASER. The Smartest Offer

**We have become leaders in research and development for one reason only:  
offering your company customised solutions  
to optimise production at the right cost.**

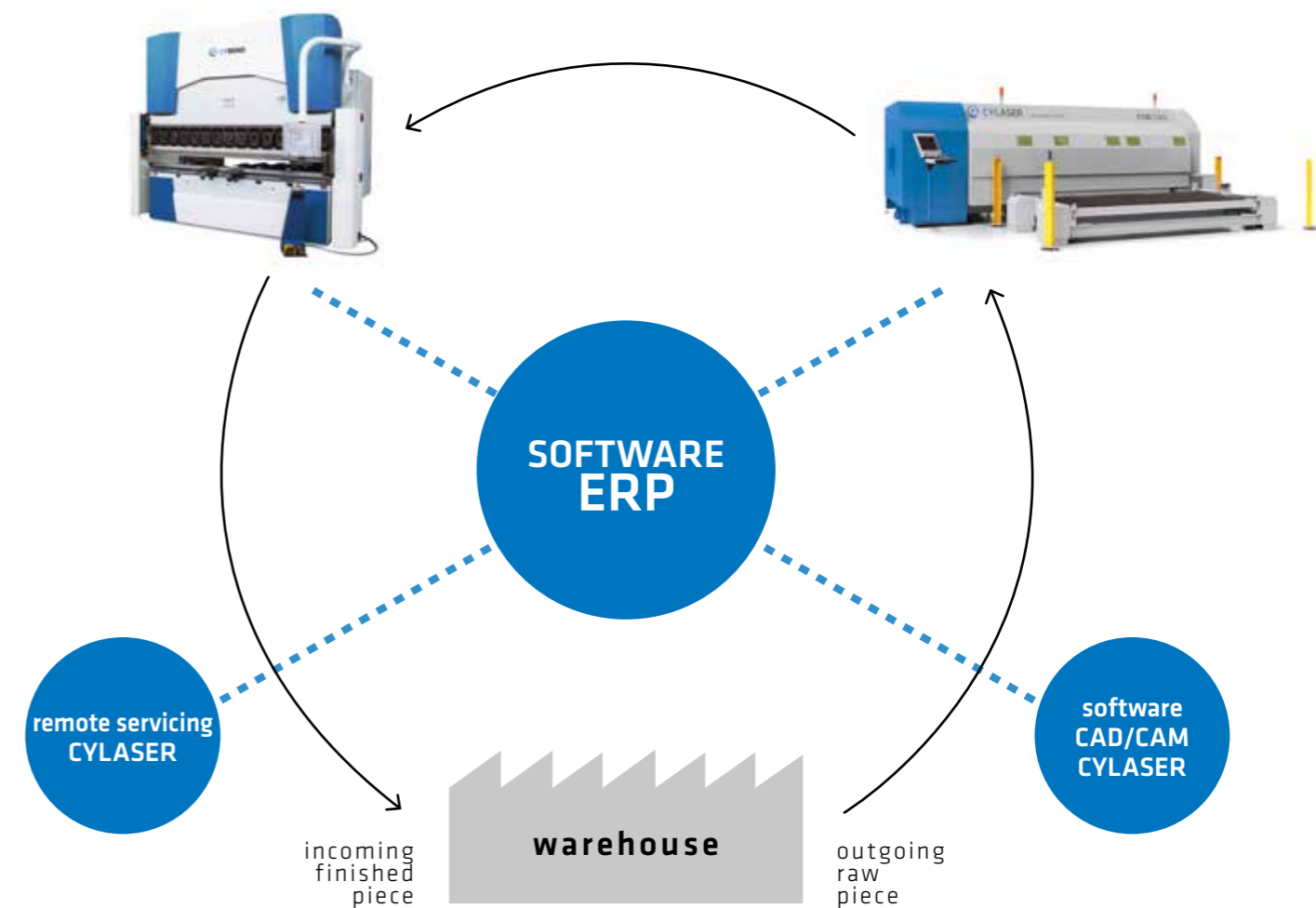
## OUR 5 FIELDS OF APPLICATION:

				
<b>CY2D</b> 2D Cutting Systems	<b>CYTUBE</b> Tube Cutting Systems	<b>CYBEND</b> Bending Systems	<b>CYWELD</b> Custom Welding Applications	<b>CY3D</b> 3D Laser System
				

- **We are a genuine technological partner.**  
We recommend balanced solutions for our clients, basing them on an analysis of their actual needs.
- **We are fiber laser specialists.**  
We offer an efficient and proven working process.
- **Pioneers in the fiber laser field.**  
We boast over a decade of experience and installations.

# The CYLASER cyber-physical system

- It can be integrated seamlessly with other machinery of the production cycle thanks to the CYLASER Open Source software which is able to manage any existing automation system.
- It automatically fits into a company's logistic system.
- Remote and self-diagnosis software applications allow remote control and assistance.



## The CYLASER 4.0 innovation improves:

- versatility through the production of small batches at large-scale costs,
- fast development from the prototype to mass production,
- productivity through shorter set-up time, less errors and machine downtime,
- quality through sensors that monitor production in real time reducing production scraps.

## CY2D

- System designed specifically to tap into the **potential of fiber laser**.
- **A unique construction concept**, use of OTS components without forced customer loyalty.
- **Airplane structure**, which is stable over time and more precise even with large formats.
- Compact and easy-to-transport design that ensures **fast installation**.
- **Proprietary laser cutting head**, which is the result of experience with the process.
- **Compatible** with the main CAD-CAM software packages on the market.
- **Over 10 available configurations**, to meet the production needs of any customer.





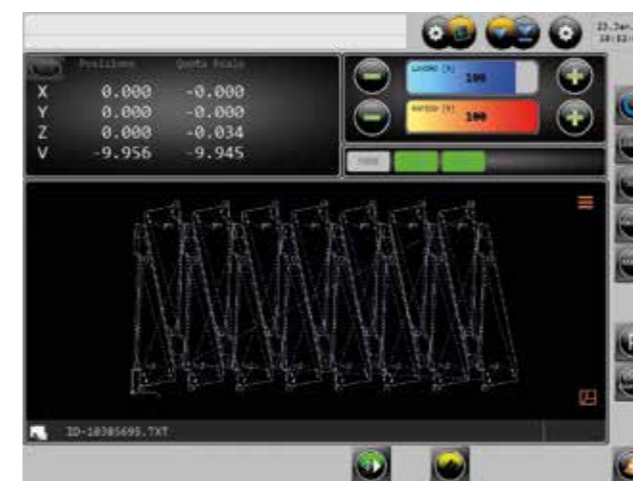
## Automatic nozzle changing

- 18 positions for nozzle selection.
- Complete cycle in less than 16 sec.
- Utmost versatility in unmanned production.



## Full access

- Sliding doors along the entire length of the machine.
- Full access guaranteed on both sides of the machine.
- Interlock closing system.
- Class 1 laser safety windows.



## Simple and user-friendly interface:

- Easy-to-use and customizable graphic system.
- Features all the software needed for management on the machine and remotely.
- Possibility to choose a normal PC as a more flexible and affordable alternative.
- Possibility to integrate a hand-held device to control the machine from any position.



## CYLASER Software:

- Certified for the main CAD-CAM software on the market for the maximum degree of integration with any existing system
- It fits perfectly into the company network to ensure remote servicing and diagnostics.
- It allows sharing the cutting technologies with management and quotation systems.



## The heart of the machine, the CYLASER head



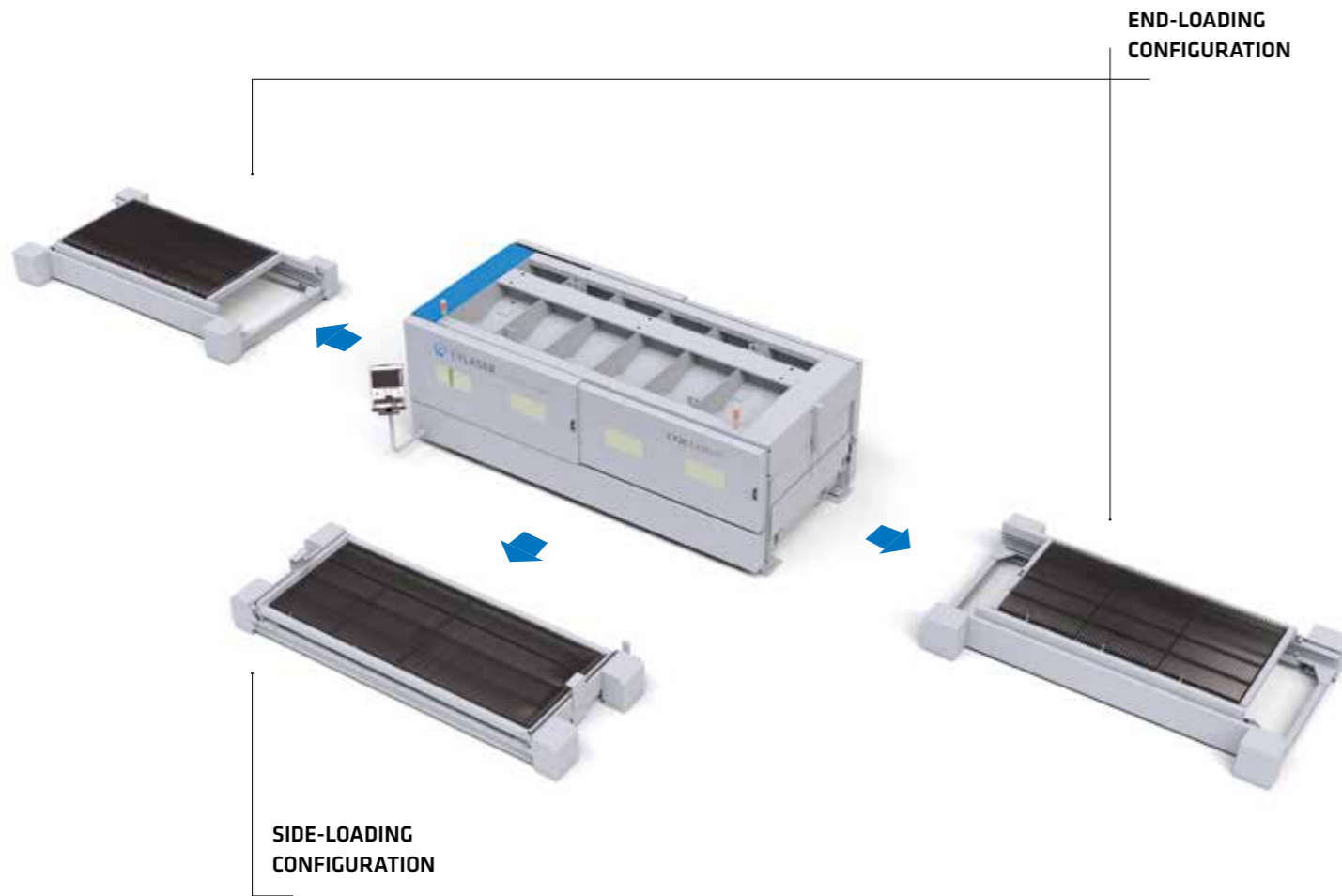
- Optics configuration designed as per customer specifications.
- Maximum reliability guaranteed by the protective glass, including during maintenance.
- Magnetic anti-collision system to reduce machine downtime to a minimum.
- Integrated process monitor to continuously keep track of production.
- CYSP Servo-piercing for fast and clean piercing of very thick plates.
- Automatic nozzle cleaning and height control calibration.
- Compressed air preparation for cutting as an alternative to technical gases.
- Flycut function for high-speed cutting of grids.
- Vortex function for better quality and reduced gas consumption when cutting stainless steel.
- Marking and incision management and film-protected material cutting.

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Magnetic anti-collision system  
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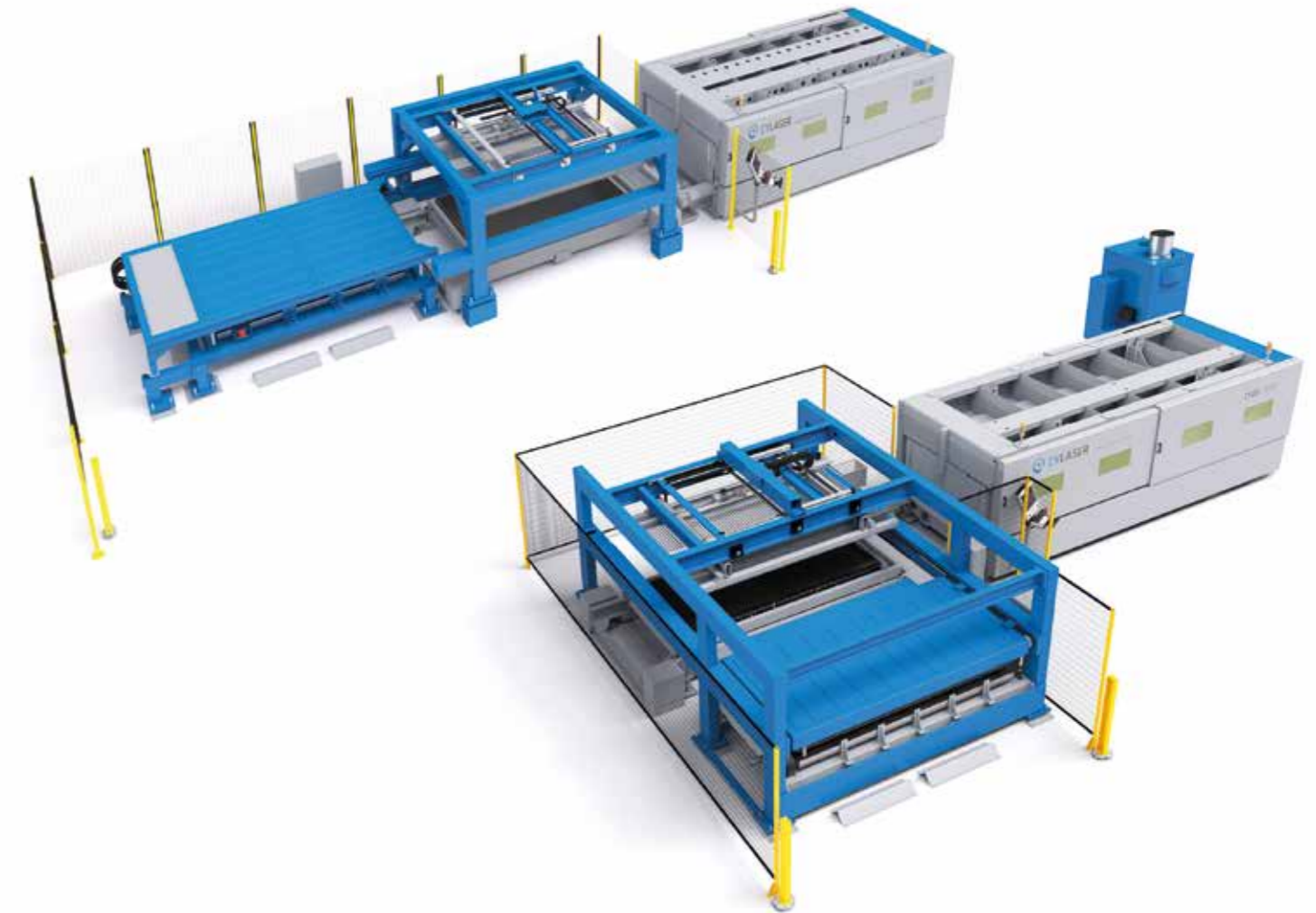
# We make space for all needs

The CY2D range offers a great variety of models thanks to the modular system that allows different configurations and dimensions.



# Automated production

CYLASER systems can be integrated with different types of automation, from the loading/unloading server to the automated storage tower for completely unmanned production. The CYLASER software allows the integrated management of third-party integration systems thanks to the open source concept.



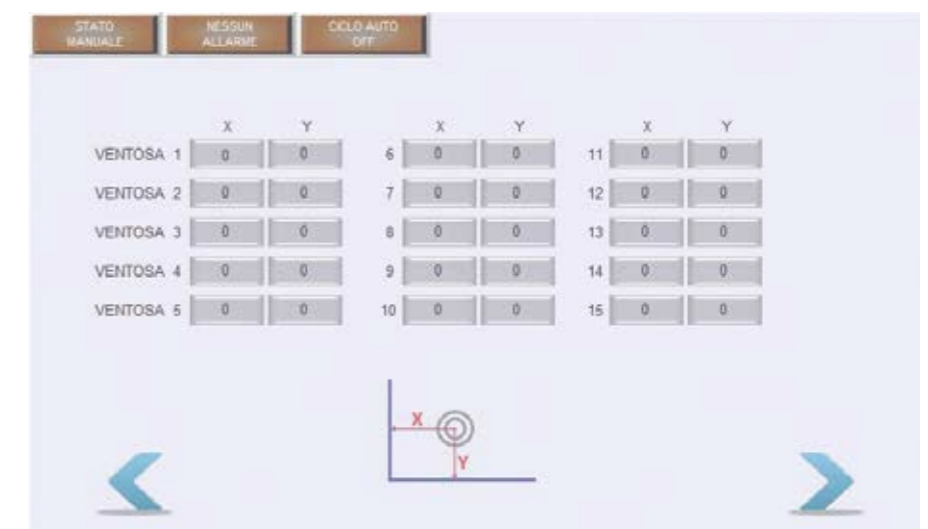
Proprietary scheduler for automated cutting management of the different programmes assigned to different storage tower

**Scheduler** CYLASER

Seq.	Ordering	Name	Area L.	Centro/Quadrante	Veloc.	Time	Status
1	23-01-17 18:03:02	Q-10385695	1	2/2			⊕
2	23-01-17 18:03:41	Q-12548864	1	1/1			⊕
3	23-01-17 18:03:32	Q-10385695	1	2/2			⊕
4	23-01-17 18:03:50	Q-10996174	1	1/1			⊕
5	23-01-17 18:03:32	Q-10385695	1	1/1			⊕
6	23-01-17 18:03:50	Q-10996174	1	2/2			⊕
7	23-01-17 18:03:41	Q-12548864	1	1/1			⊕
8	23-01-17 18:03:41	Q-12548864	1	2/2			⊕
9	23-01-17 18:03:50	Q-10996174	1	1/1			⊕

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Parameter management of automation event:  
Double thickness/plate separation/desired suction cup plane setting  
(1000x1000-1000x2000-1250x2500-1500x3000mm)





## THIN GAUGE

### CY2D20L4020 Machine + Compact Server

#### ADVANTAGES

- Greater productivity thanks to the 4000x2000mm plate format, more pieces per cycle and less production scrap.
- Optimized space thanks to the compact design; it can be easily integrated into the production process.
- Up to 70% greater production efficiency thanks to dedicated automation and the shorter loading cycle to benefit from the nitrogen cutting speed.

## THICK GAUGE

### CY2D50L8025 Machine

#### ADVANTAGES

- Greater precision thanks to the 8000x2500 format, no repositioning and improved nesting.
- Increased performance thanks to laser power modulation, less energy wasted and easier heat management.
- High productivity thanks to the dual tables, with more efficient loading/unloading cycles and less idle time.





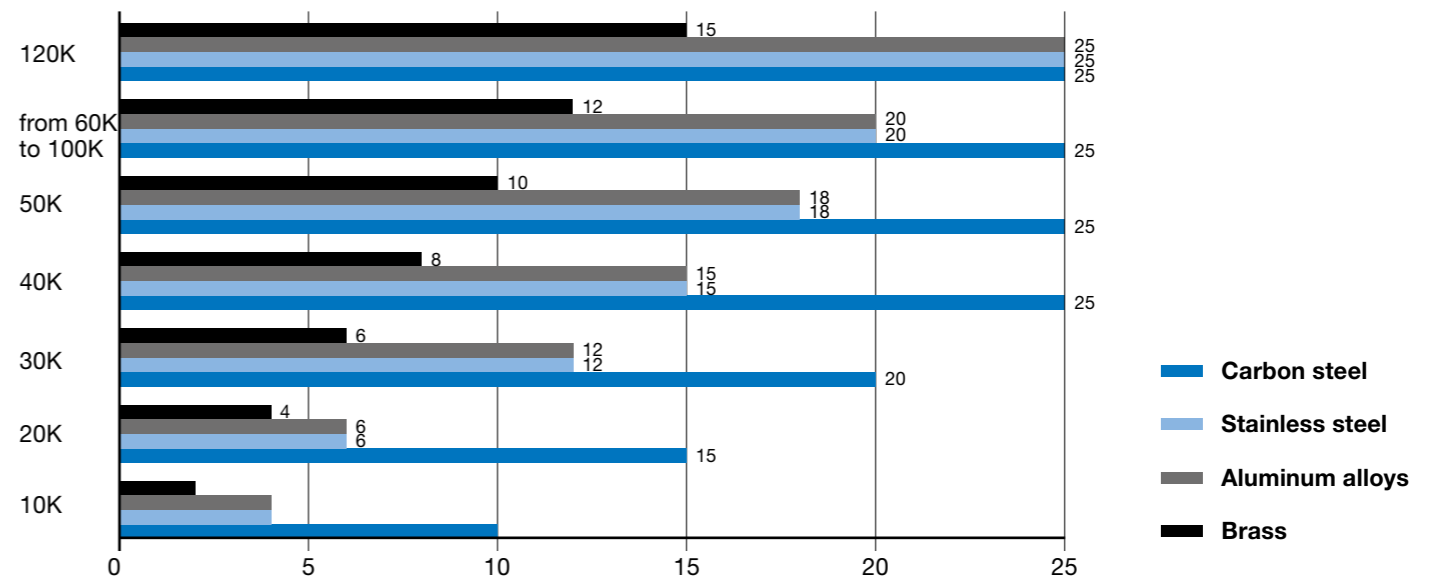
# CY2D Data sheet

System Model		C	L / S	HT
<b>Working Area</b>				
X Axis Travel	mm	2.550	From 3.070 to 8.100	From 3.070 to 4.070
Y Axis Travel	mm	1.280	From 1.550 to 2.530	From 1.550 to 2.030
Z Axis Travel	mm	120	120	120
<b>Max Loading Capacity on each pallet</b>				
	kg	250	Up to 4.000	Up to 1.600
<b>Pallet Changer Cycle Time</b>				
	sec	15	From 30 to 70	From 30 to 40
<b>Axis Kinematic</b>				
Min\Max Cutting Speed	mm/min.	150/30.000	150/50.000	150/50.000
Positioning Speed (Assi X+Y)	mm/min.	50.000	110.000	110.000
Interpolated Positioning Speed	mm/min.	70.700	155.000	155.000
Acceleration	mm/sec <sup>2</sup>	6.000	9.000	13.500
<b>Accuracy &amp; Precision</b>				
Accuracy	mm	0,05	0,03	0,03
Precision each	mm	0,1	0,08	0,08
800mm travel				
Perpendicularity tolerances	mm	0,01	0,01	0,01
<b>Machine Overall Dimensions</b>				
		See Layout	See Layout	See Layout
<b>Machine Weight</b>				
	kg	8.000	From 11.000 to 25.000	From 11.000 to 15.000
<b>Required Dust Collector</b>				
		2C	6C/12C	6C
<b>Color</b>				
	RAL	Grey 7040 Blue 5015	Grey 7040 Blue 5015	Grey 7040 Blue 5015
<b>Voltage Required (**):</b>				
		Upon Request	Upon Request	Upon Request
		50 / 60Hz	50 / 60Hz	50 / 60Hz

Maximum Cutting Capabilities		10K	20K	30K	40K	50K	60K	80K	100K	120K
Carbon Steel	mm	10	15	20	25	25	25	25	25	25
Stainless Steel	mm	4	6	12	15	18	20	20	20	25
Aluminum	mm	4	6	12	15	18	20	20	20	25
Brass	mm	2	4	6	8	10	12	12	12	15

\* 8 and 10 kW sources guarantee more productivity on thicknesses >5 mm

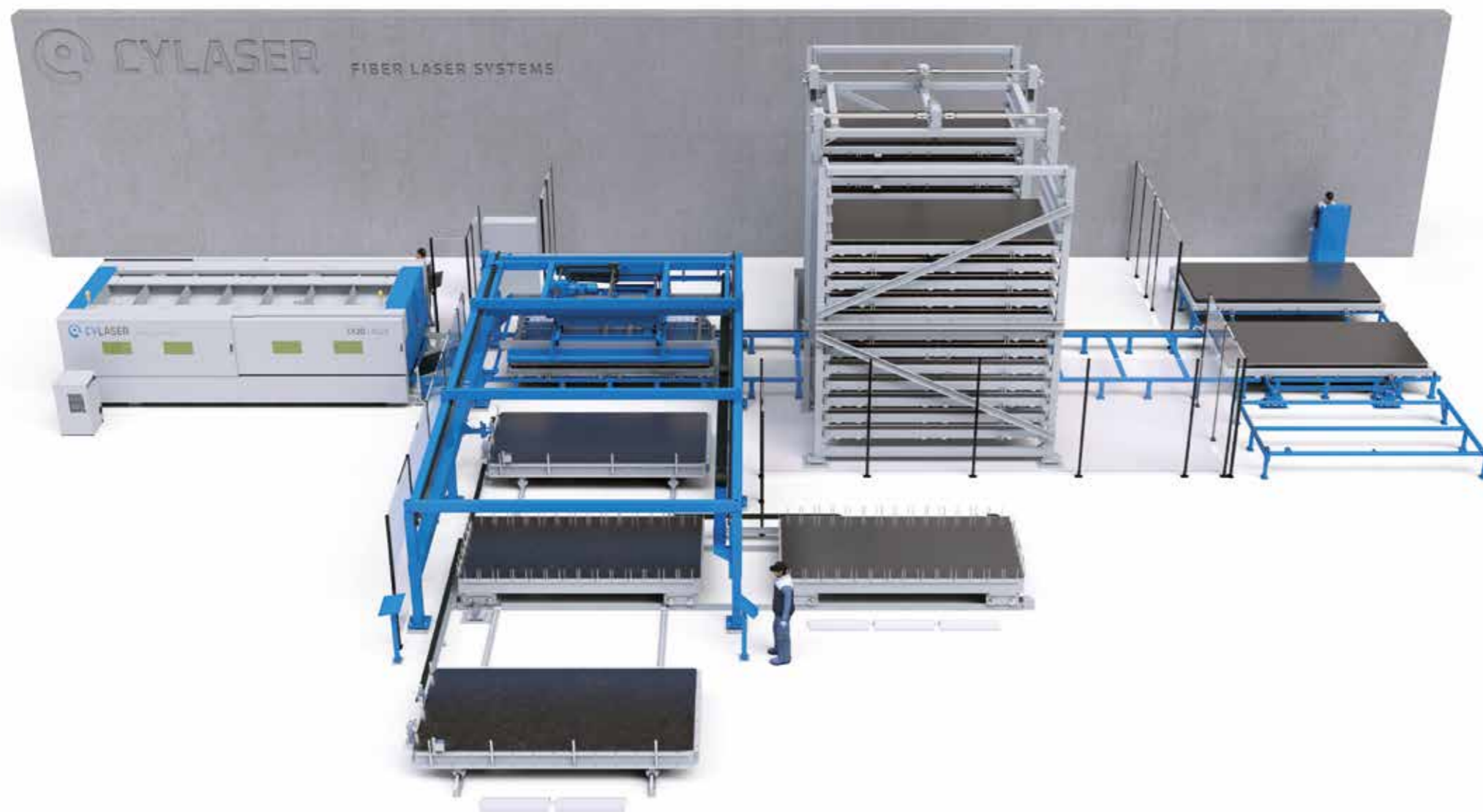
## Cutting capacity



Generator model		10K	20K	30K	40K	50K	60K	80K	100K	120K
Nominal Power	kW	1	2	3	4	5	6	8	10	12
Power Requirement at peak point	kW	3	6	9	12	15	18	24	30	36
Total Power of complete installation (*)	kW	19	22	27	30	33	36	42	48	54
Wavelength	nm	1.074	1.074	1.074	1.074	1.074	1.074	1.074	1.074	1.074

(\*) fiber laser generator, exhaust filter, chiller, 2d machine.

# CYLASER 4.0 Evolved automation

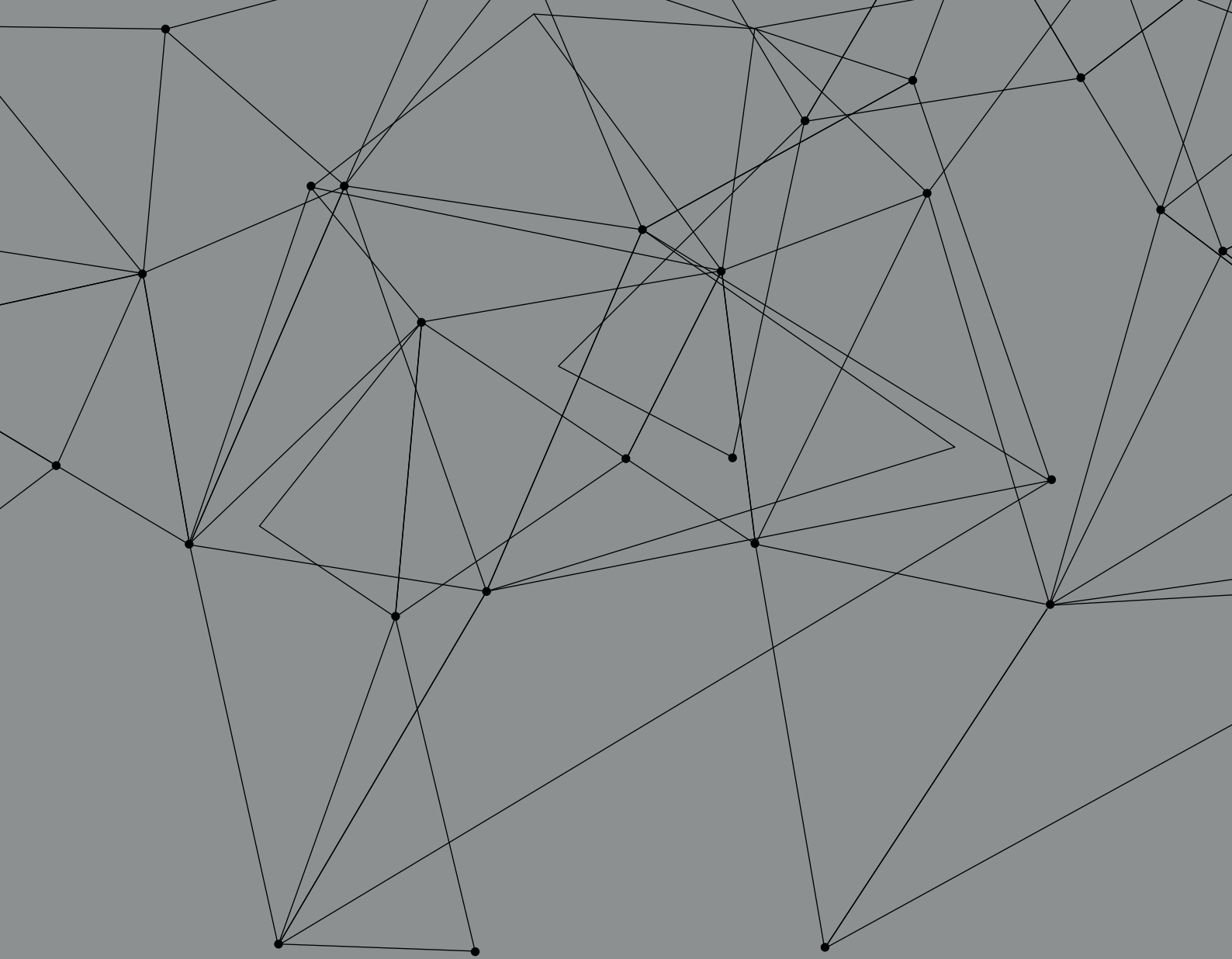


ITALIA  
**CY-LASER Headquarter**  
Via Lago di Alleghe, 58/60  
36015, Schio (VI)

ITALIA  
**CY-LASER R&D**  
Via Lago di Lugano, 4  
36015, Schio (VI)

USA  
**CY-LASER America LLC**  
6110 15 Mile Road  
48312 Sterling Heights (MI)

[info@cy-laser.com](mailto:info@cy-laser.com)  
[www.cy-laser.com](http://www.cy-laser.com)



[www.cy-laser.com](http://www.cy-laser.com)



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