



**CYLASER**  
FIBER LASER SYSTEMS



Forget What You've Heard About Fiber Optic Lasers

**CY LASER HAS CHANGED ALL THE RULES**



# CY LASER

pioneered the application of today's advanced solid state fiber laser generators to dedicated laser cutting systems. The result is the most mature family of fiber laser cutting systems in the world.

## THE CUTTING EDGE OF LASER PERFORMANCE

That decade of development experience is why **Cy Laser** cutting systems outperform conventional CO<sub>2</sub> lasers both on the shop floor and on the bottom line.

# THAT CUTS ANYTHING FROM SHEETMETAL TO 1" PLATE STEEL

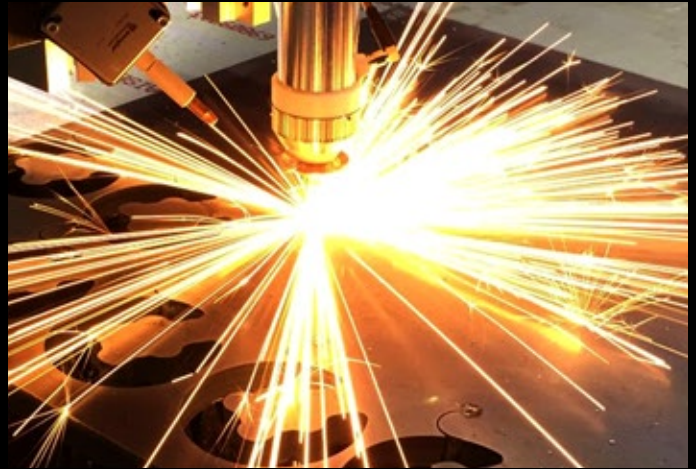
## SOLID STATE EFFICIENCY AND RELIABILITY

Now you can have solid state fiber laser efficiency and reliability in a system that delivers up to 4kW of extremely high-quality laser beam to the cutting head through an armored, flexible fiber cable. The beam quality and wavelength of the Cy Laser simplifies the cutting of highly reflective materials like aluminum, brass, bronze and copper efficiently.

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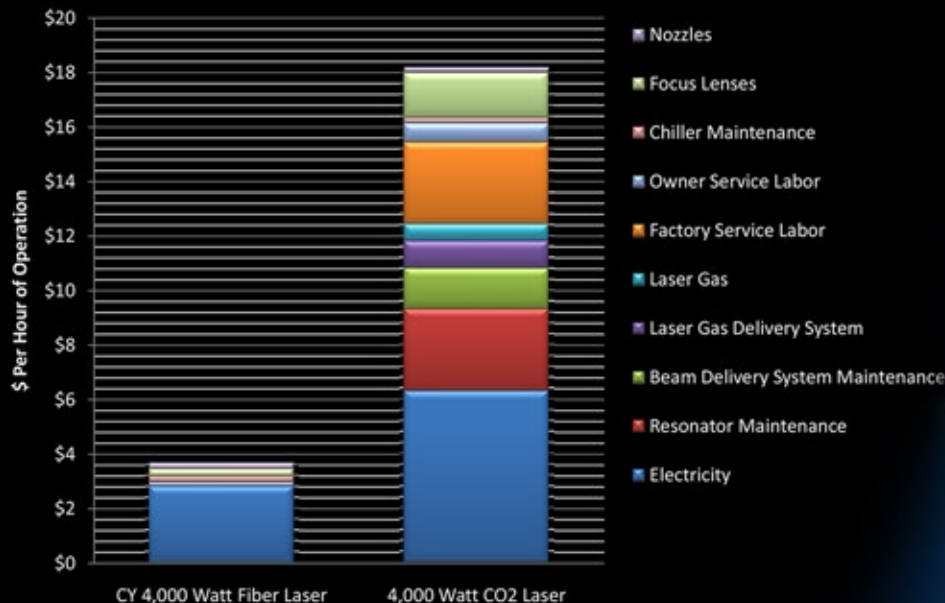
Extremely Low Operating Cost  
Very Low Power Consumption  
340,000 Hour Diode MTBF  
4 Times Greater Beam Power Density  
No CO2 Gas Turbine System  
No Resonator Refurbs  
No Mirrors or Alignment – Ever  
Expected Minimum Diode Life of 100,000 Hours

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## EXTREMELY LOW OPERATING COST

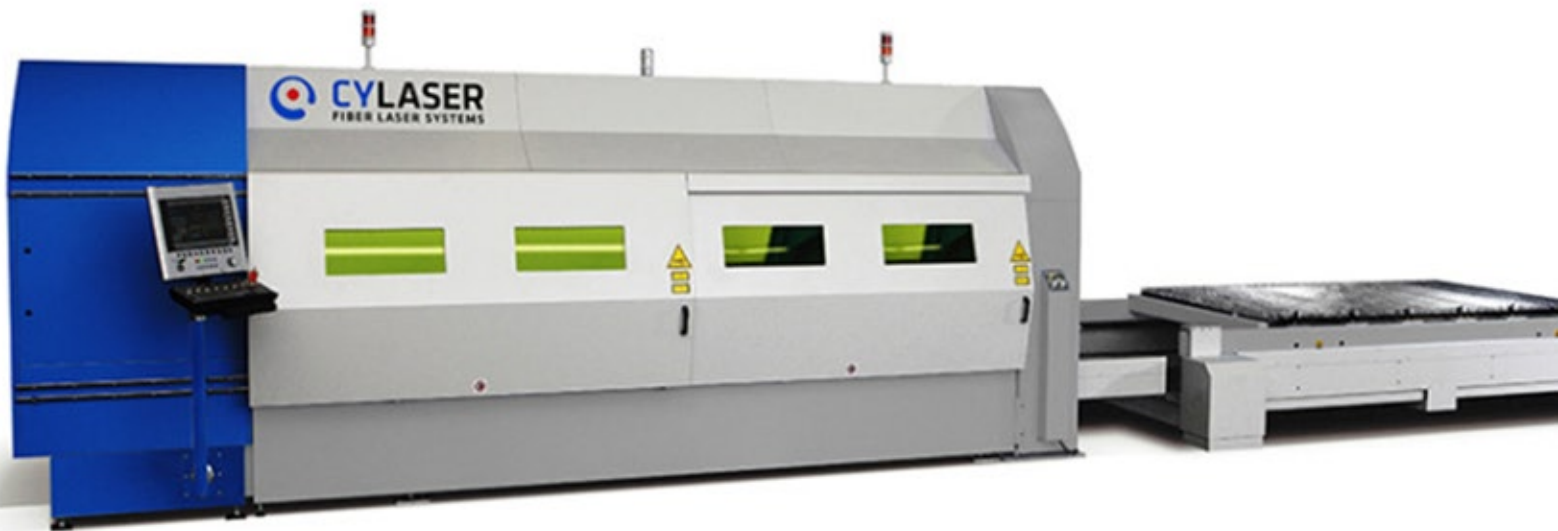
By eliminating most of the high-maintenance, power-consuming components of a CO2 laser system the CY Laser slashes operating costs by up to 75%. Imagine competing in the laser market with up to 75% lower cost than your competitors.



# STANDARD END LOADING SYSTEMS

More than 100 Cy Laser systems are currently at work around the world. All use standard, off-the-shelf electro-mechanical components throughout to maximize reliability, simplify maintenance and minimize cost.

Cy Laser End Loading 2D cutting systems offer a classic configuration easily integrated into existing processes and material flows.



Like the solid-state laser, these machines are designed to be simple, yet rugged and precise with minimal maintenance requirements.

- The backbone of the system is a precision, stress relieved and machined overhead electro-welded [X axis], assembly supported on one end by a large column and a bridge structure on the other.
- An airplane wing like assembly [ Y Axis ] is mounted perpendicularly onto the X Axis and the cutting head slide assembly [Z axis] is mounted on it.
- The fourth axis [V Axis] is mounted on the cutting head and automatically controls the focus position to deliver the programmed cutting parameters.

# STANDARD END LOADING SYSTEMS

## Application

Laser cutting - sheetmetal and metal plate

## Main Characteristics

Airplane structure with self-supporting frame motion system  
Dual table motorized system, independent from machine frame

## Description

Cutting feed rates range	150-50.000 mm\min
Rapid travel	110.000 + 110.000 mm\min
Accuracy of positioning	± 0.03 mm
Repeatability over 32 linear inches of table length	± 0.05 mm
Accuracy of parallelism and perpendicularity over any 32 linear inches of table length (Y,X axis)	± 0.05 mm

## Machine Type

Model	Work Area Dimensions (mm)	Overall Dimensions (mm)
L3015	3100x1550	L 11500 x W 2900 x H 2150
L4020	4100x2050	L 13500 x W 4050 x H 2150
L6020	6100x2050	L 17500 x W 4050 x H 2150
L6025	6100x2550	L 17500 x W 4550 x H 2150
L8025	8100x2550	L 21500 x W 4550 x H 2150

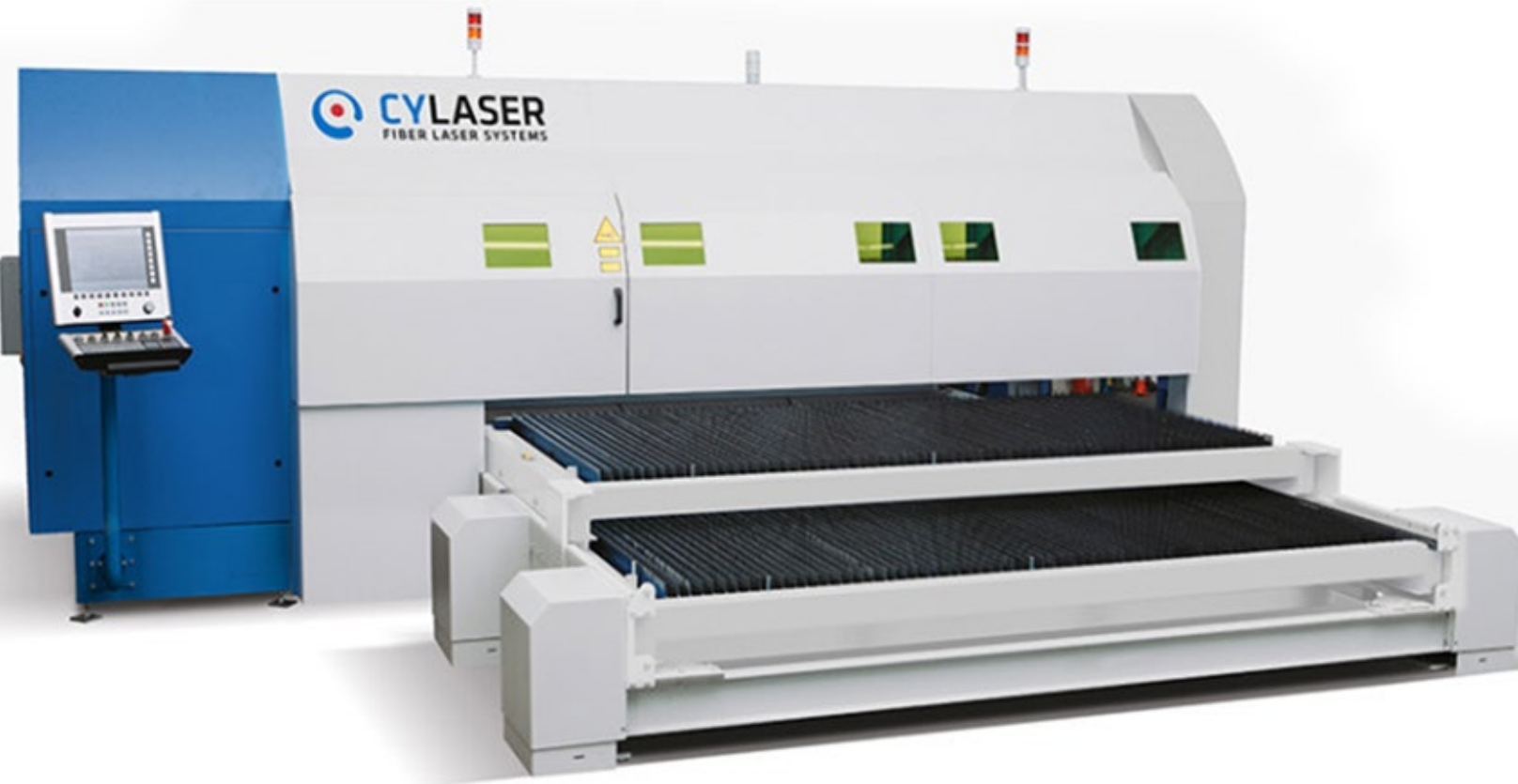
## Generator Type, Cutting Capability and Installation Power Requirement

Max Thickness	2 kW	3 kW	4 kW	5 kW	6 kW
Carbon Steel	15mm	20mm	25mm	25mm	25mm
Stainless Steel	6mm	12mm	15mm	18mm	20mm
Aluminum	6mm	12mm	15mm	18mm	20mm
TOTAL installation power requirement (@ 400 Volts - includes motion system, laser generator and chiller)	20kw	30kw	40kw	50kw	60kw



# STANDARD SIDE LOADING SYSTEMS

CY Laser Side Loading Cutting Systems offer a very compact footprint in a configuration that mirrors contemporary best practices in machine design and process flow.



Side Loading Systems often are the best choice for limited space applications and new installations.

- The backbone of the system is a precision, stress relieved and machined overhead electro-welded [X axis], assembly supported on one end by a large column and a bridge structure on the other.
- An airplane wing like assembly [ Y Axis ] is mounted perpendicularly onto the X Axis and the cutting head slide assembly [Z axis] is mounted on it.
- The fourth axis [ V Axis ] is mounted on the cutting head and automatically controls the focus position to deliver the programmed cutting parameters.

# STANDARD SIDE LOADING SYSTEMS

## Application

Laser cutting - sheetmetal and metal plate

## Main Characteristics

Airplane structure with self-supporting frame motion system  
Dual table motorized system, independent from machine frame

## Description

Cutting feed rates range	150-50.000 mm\min
Rapid travel	110.000 + 110.000 mm\min
Accuracy of positioning	± 0.03 mm
Repeatability over 32 linear inches of table length	± 0.05 mm
Accuracy of parallelism and perpendicularity over any 32 linear inches of table length (Y,X axis)	± 0.05 mm

## Machine Type

Model	Work Area Dimensions (mm)	Overall Dimensions (mm)
3015SL	3100x1550	L 6000 x W 5500 x H 2150
4020SL	4100x2050	L 7000 x W 6500 x H 2150
6020SL	6100x2050	L 9000 x W 6500 x H 2150

## Generator Type, Cutting Capability and Installation Power Requirement

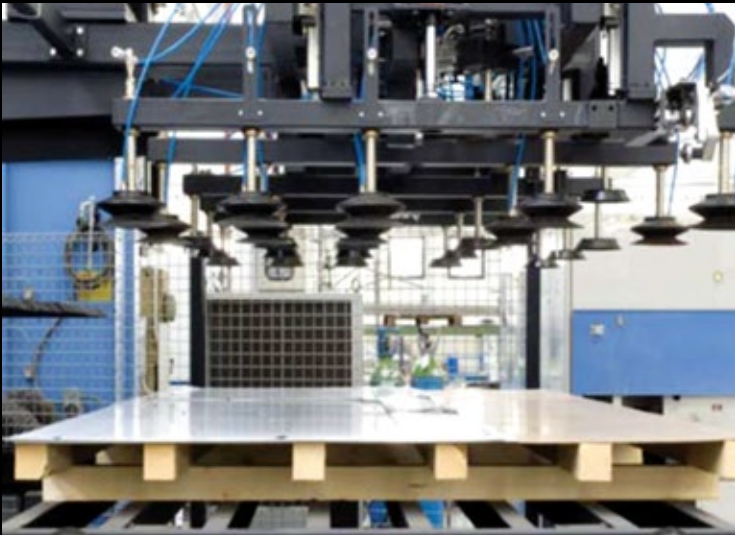
Max Thickness	2 kW	3 kW	4 kW	5 kW	6 kW
Carbon Steel	15mm	20mm	25mm	25mm	25mm
Stainless Steel	6mm	12mm	15mm	18mm	20mm
Aluminum	6mm	12mm	15mm	18mm	20mm
TOTAL installation power requirement (@ 400 Volts - includes motion system, laser generator and chiller)	20kw	30kw	40kw	50kw	60kw



# RAMP UP YOUR PRODUCTIVITY WITH ADVANCED AUTOMATION SYSTEMS



Cy Laser can supply automation solutions to enhance the productivity of our solid state laser cutting systems. Everything from basic auto load/unload to complete FMS systems can be integrated with standard Cy Laser machines to help you reap the full benefits of efficient, reliable, low-cost solid-state fiber laser technology on your shop floor and on your bottom line.



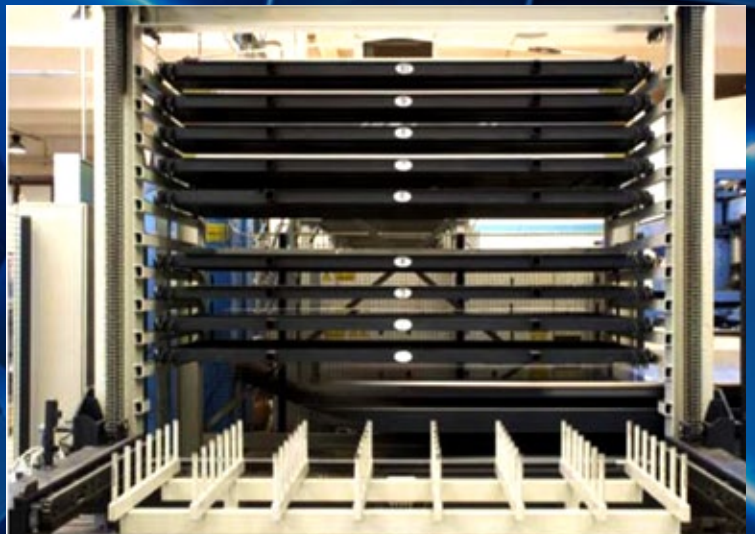
Suction Cup Loader



Load / Unload Mechanism



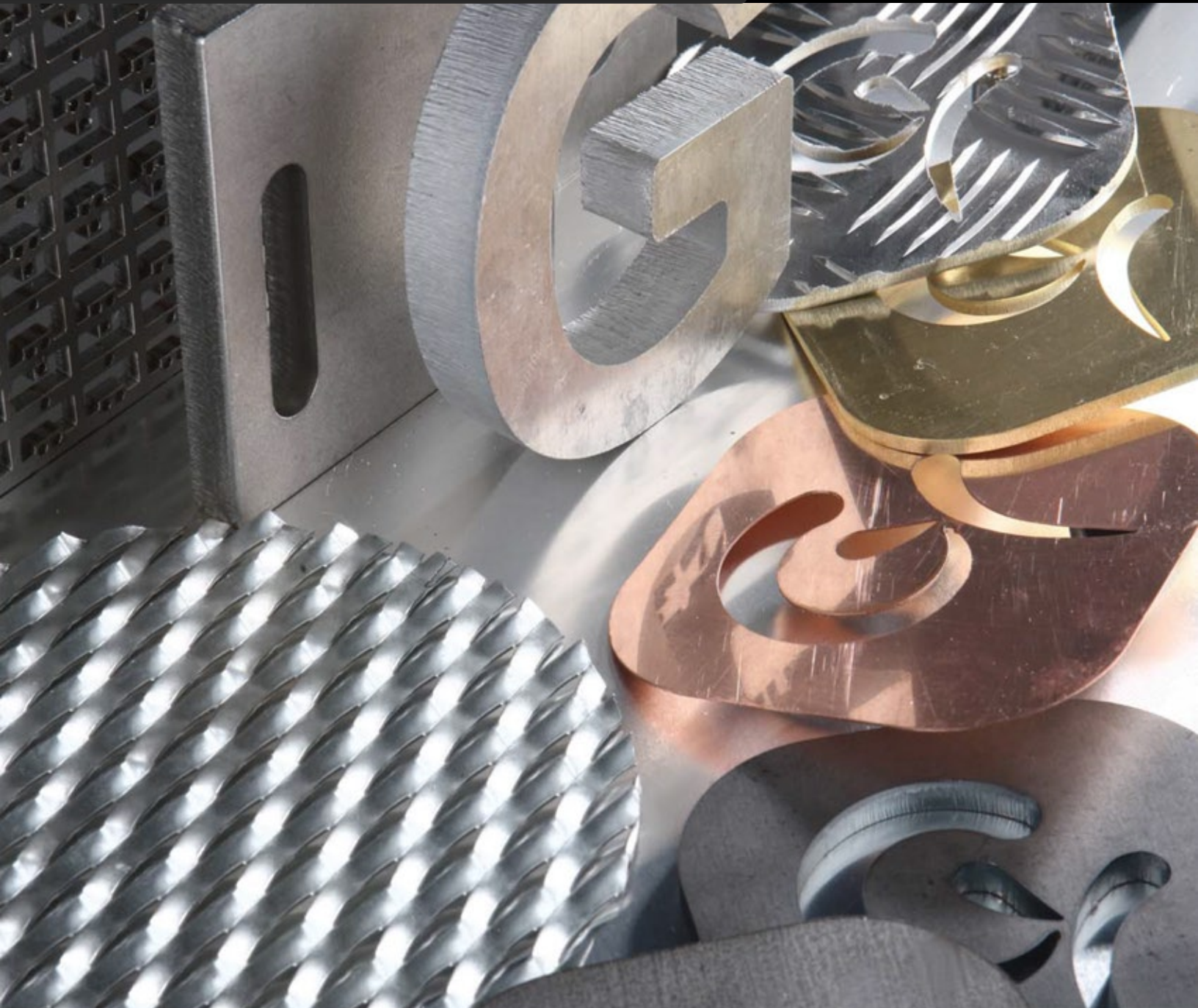
Dual Material Tower FMS



Raw Material Tower



# NOW YOU CAN JUSTIFY A LASER CUTTING SYSTEM



- Slash operating costs up to 75%
- Work with up to 4kW at the cutting head
- Cut 1" mild steel, 3/4" aluminum and 5/8" stainless
- Eliminate high-maintenance gas systems and components
- Reap all the benefits of Fiber Laser solid-state efficiency and reliability.





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