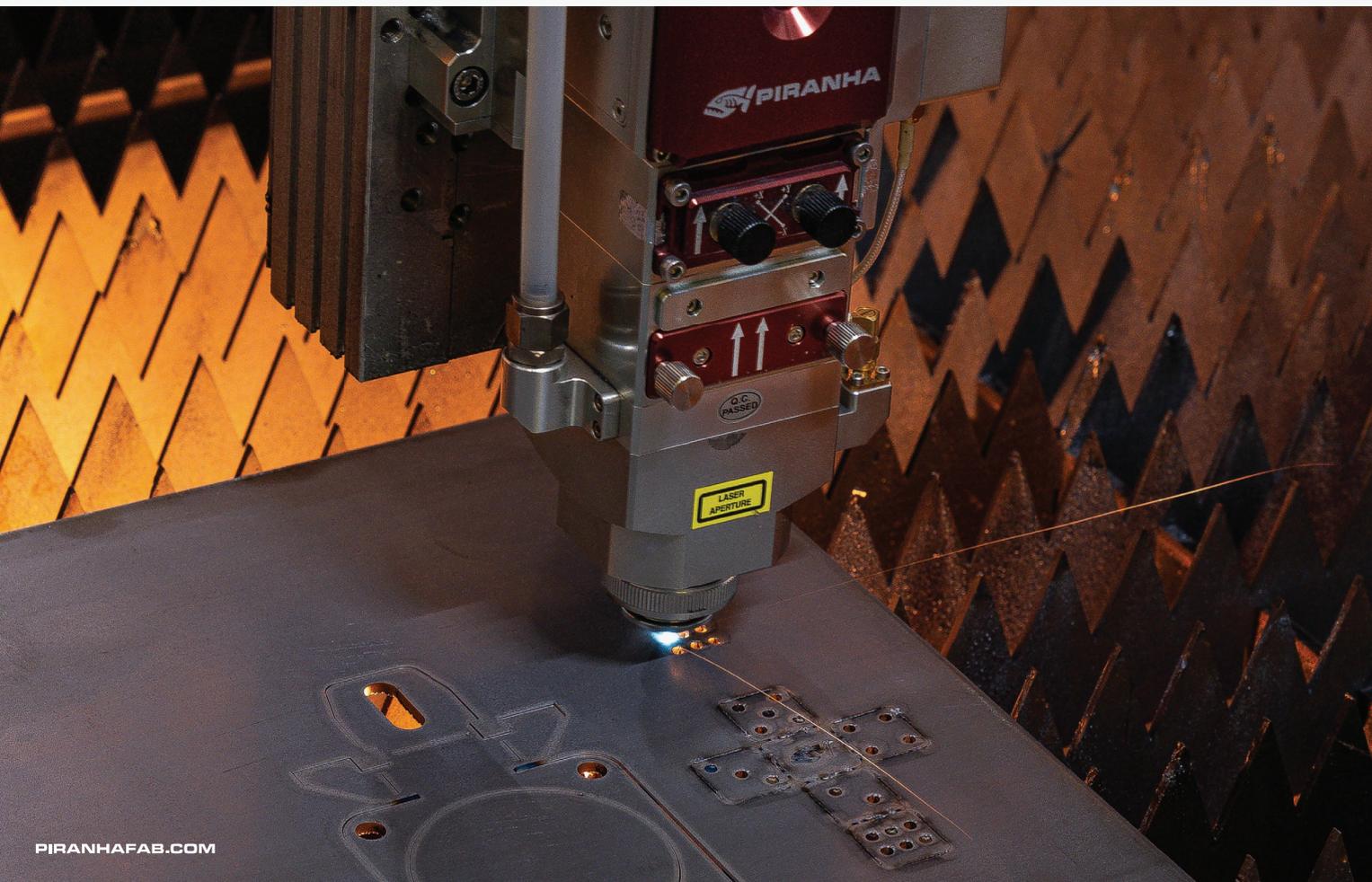




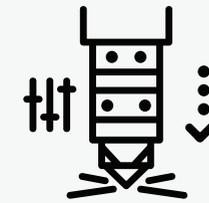
# FIBER LASERS

# Decades of Fabrication Experience. Built Into Every Laser.

Piranha has supported American fabricators for generations—with machines designed, built, and backed by people who understand the job. The Flex Series CNC fiber lasers carry that legacy forward with smart automation, precision engineering, and a commitment to long-term success for every customer. If you're ready for a laser partner—not just another machine—let's talk.



# Why Choose Piranha?



## Real Application Support, When You Need It

Buying a laser is one thing. Knowing how to get the best results out of it is another. That's why our team is here to help with real-world cutting advice—like dialing in your settings, working with new materials, and adjusting for the perfect cut. You'll have experts you can actually talk to—before and after the sale.



## Ready for Automation—Now or Later

All of our fiber lasers are built with automation in mind. Whether you want to add material loading and unloading now or down the road, your machine is ready. That means you don't need to buy a whole new system when it's time to grow.



## Built for Long-Term Value

Some lasers look cheaper—until you start running them. Piranha fiber lasers are designed to last, with fewer breakdowns, less downtime, and real savings on labor. You'll get more done with fewer headaches—and a faster return on your investment.



## Made by People Who Know Fabrication

We don't just build lasers—we build equipment for real shops like yours. With decades of experience in fabrication, we understand how this laser fits into your entire process, from cutting to forming to finishing. We're here to help your whole shop run better.



## U.S. Service That Actually Shows Up

Need help? You won't be stuck waiting on overseas tech support or reading through vague manuals. You'll get fast answers from real people, right here in the U.S.—whether it's installation, training, or troubleshooting.



## Fast Delivery. Quick Setup.

No need to wait months for your machine. Our lasers are in stock and ready to go. We'll get you up and running quickly so you can start cutting—and making money—faster.

# SINGLE PALLET FIBER LASERS

Piranha fiber LASER metal cutting machines are built with reliability and economy in mind. These tough machines use proven technology to ensure precision and reliability throughout their service life. This special combination of durability and cost efficiency provides maximum value for steel processors.



- ▲ Single Pallet for Reduced Floor Space
- ▲ 5' x 10' and 4' x 4' models available
- ▲ 3.0kW and 6.0kW options
- ▲ Helical rack and pinion positioning system
- ▲ 3,150 IPM (80 m/min) maximum travel rate per axis
- ▲ Windows 10 CNC control with Cypcut

- ▲ Red diode LASER pointer
- ▲ Automatic Lubrication System with timer
- ▲ Automatic Cutting Gas Control and proportional valve
- ▲ Segmented Dwindraft Dust Removal System with Blower

## SPECIFICATIONS

Machine Model	Piranha Laser SP510	Piranha Laser SP404
Laser Type	Fiber	Fiber
Laser Power	3 kW or 6 kW	3 kW or 6 kW
Drive Type	X-axis – Helical Rack & Pinion Y-axis – Helical Rack & Pinion Z-axis – Ballscrew	X-axis – Helical Rack & Pinion Y-axis – Helical Rack & Pinion Z-axis – Ballscrew
Max Working Area	61 x 122 inch	51.96 x 51.96 inch
Positioning speed – X	3,150 IPM	3150 IPM
Positioning speed – Y	3,150 IPM	3150 IPM
Positioning speed – Z	1,575 IPM	2362 IPM
Accelerations – X,Y	1.2 G	1.1 G
Positioning Accuracy	0.001 +/- inch	0.002 +/- inch
Repeatability	0.001 +/- inch	0.002 +/- inch
Max Cutting Speed	3150 IPM	3150 IPM

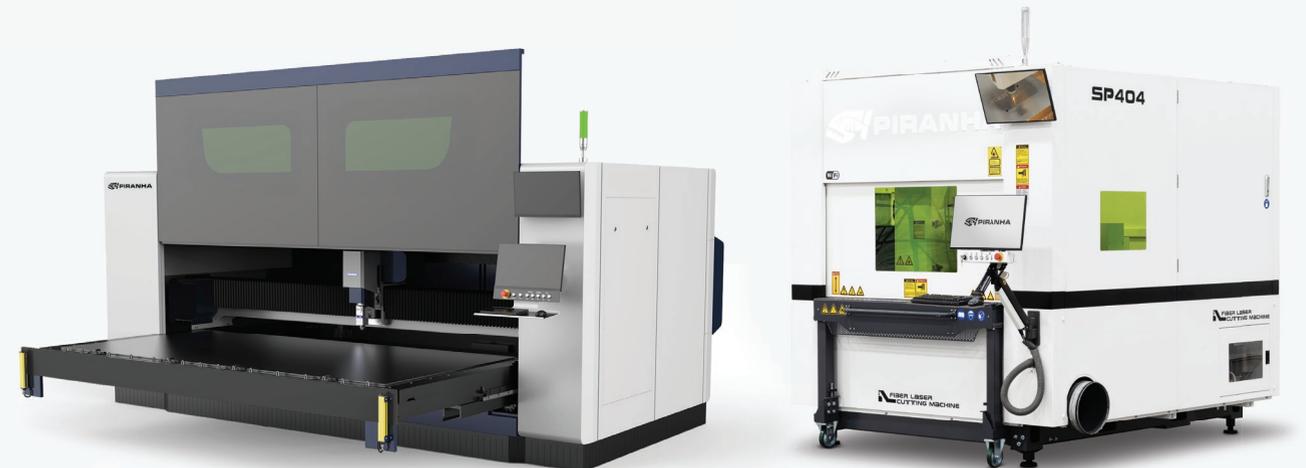
## MAX SHEET THICKNESS

### 3 kW

Carbon Steel	0.750 inch	0.750 inch
Stainless Steel / N2	0.375 inch	0.375 inch
Aluminum	0.375 inch	0.375 inch

### 6 kW

Carbon Steel	1.000 inch	1.000 inch
Stainless Steel / N2	0.750 inch	0.750 inch
Aluminum	0.750 inch	0.750 inch



# FLEX SERIES FLATBED LASERS

Piranha FLEX LASER cutting machines are built with reliability and economy in mind. These tough machines use proven technology to ensure precision and reliability throughout their service life. This special combination of durability and cost efficiency provides maximum value for steel processors.

Your Piranha FLEX LASER can be configured with a range of resonators, cutting heads, dust collectors, and performance options to balance your LASER cutting requirements with your budget.



## Piranha Flex LASER Fiber LASER Cutting Machines

### HIGHLIGHTS

- ▲ Cutting areas from 5'x 10' to 8' x 20'
- ▲ Solid-state fiber power supply LASER resonators from 3kW to 20kW with an auto-focus cutting head appropriate for the selected power level
- ▲ Chiller
- ▲ Helical rack and pinion positioning system with automatic lubrication
- ▲ 3,150 IPM (80 m/min) or 3,937 (100 m/min) maximum travel rate per axis
- ▲ Cypcut or Hypcut graphic CNC control
- ▲ Red diode LASER pointer
- ▲ Automatic Cutting Gas Control and proportional valve
- ▲ Nozzle cleaner

### PIRANHA FLEX LASER MODELS INCLUDE

- ▲ Flex 510 (5'x10')
- ▲ Flex 512 (5'x12')
- ▲ Flex 520 (5'x20')
- ▲ Flex 613 (6'x13')
- ▲ Flex 620 (6'x20')
- ▲ Flex 820 (8'x20')

# VALUE FIBER RESONATORS & PIRANHA CUTTING HEAD

AVAILABLE IN THESE POWER OPTIONS:

- ▲ **3.0KW** ▲ **6.0KW** ▲ **12.0KW** ▲ **20.0KW**

LASER POWER	MATERIAL	ASSIST GAS	MAX THICKNESS (IN)	TYPICAL CUTTING SPEED (IPM)
3kW	Carbon Steel	Oxygen (O <sub>2</sub> )	.750	100-200
	Stainless Steel	Nitrogen (N <sub>2</sub> ) / Air	.375	60-120
	Aluminum	Nitrogen (N <sub>2</sub> ) / Air	.375	60-100
6kW	Carbon Steel	Oxygen (O <sub>2</sub> )	1	200-350
	Stainless Steel	Nitrogen (N <sub>2</sub> ) / Air	.750	120-220
	Aluminum	Nitrogen (N <sub>2</sub> ) / Air	.750	100-180
12kW	Carbon Steel	Oxygen (O <sub>2</sub> )	1.57	400-525
	Stainless Steel	Nitrogen (N <sub>2</sub> ) / Air	1.18	250-400
	Aluminum	Nitrogen (N <sub>2</sub> ) / Air	1.18	200-350
20kW	Carbon Steel	Oxygen (O <sub>2</sub> )	2	500+
	Stainless Steel	Nitrogen (N <sub>2</sub> ) / Air	1.57	400+
	Aluminum	Nitrogen (N <sub>2</sub> ) / Air	1.57	350+

### ASSIST GAS NOTES

- ▲ Oxygen (O<sub>2</sub>): Preferred for carbon steel, especially at thicker gauges, for faster cutting.
- ▲ Nitrogen (N<sub>2</sub>): Used for stainless steel and aluminum to achieve clean, oxide-free edges.
- ▲ Air: Suitable for thinner materials, offering cost savings and reasonable cut quality.

### SPEED NOTES

- ▲ Speeds listed are typical for 0.25" (6mm) thickness. Maximum cut thicknesses will have lower speeds.
- ▲ For thin carbon steel (0.25"), Piranha lasers can reach up to 525 IPM at 12kW and even higher at 20kW.
- ▲ Actual cutting speeds can vary based on material grade, surface condition, and gas flow.



Automatic Shuttle Table



Available dust collectors with solutions for steel and aluminum cutting



- ▲ Optical Camera Full Machine Monitoring System
- ▲ Remote Run Control
- ▲ User Friendly Control HMI
- ▲ EZ Access Operator Doorway



Alternative power and brands are available

# SMARTER AUTOMATION. BUILT TO GROW WITH YOU.

Piranha's automation systems are designed to save time, reduce labor, and keep your laser cutting—shift after shift. Whether you start with manual operation or go fully automated from day one, every Flex Series fiber laser is ready for the next step when you are.

To watch automation  
in action, scan here:



## AVAILABLE AUTOMATION OPTIONS

- ▲ Automatic Loading & Unloading  
Speeds up production by handling material movement for you
- ▲ Part Picking & Sorting  
Keeps cut parts organized and reduces manual handling errors
- ▲ Nozzle Cleaning & Calibration  
Ensures consistent cut quality with less operator intervention
- ▲ Material Sensors & Safety Systems  
Built-in intelligence for safer, more efficient operation
- ▲ Expandable Design  
Add automation modules as your production needs grow



**RUN LEANER. CUT FASTER. SCALE SMARTER.**

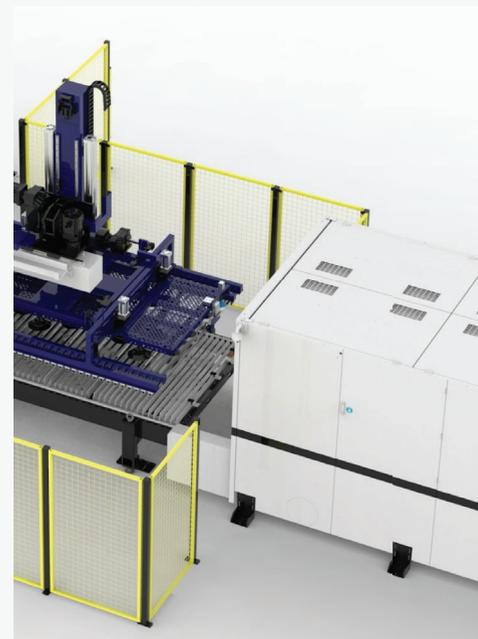
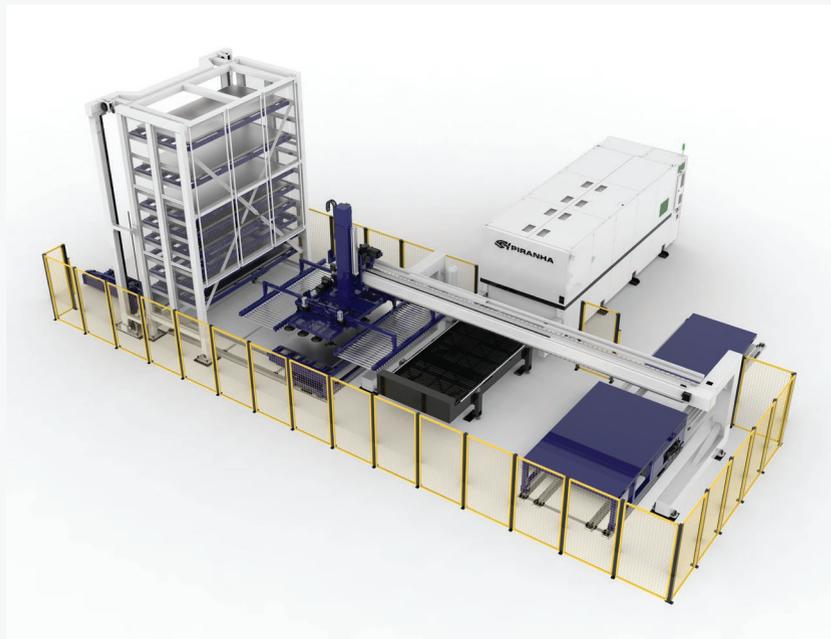
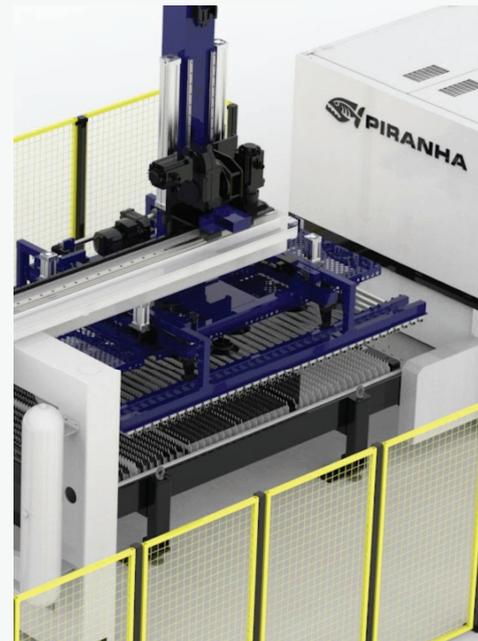
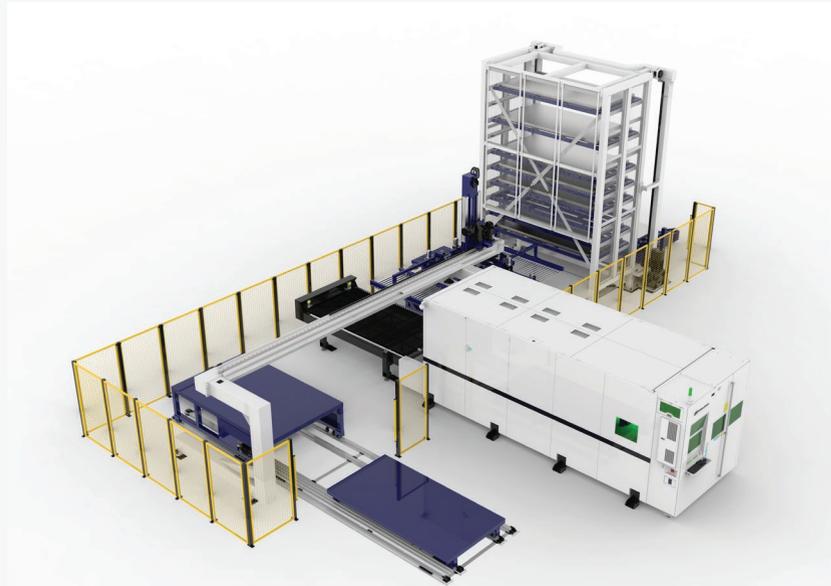
Piranha automation isn't one-size-fits-all—it's built to fit your shop, your workflow, and your goals.

# Automation Systems

## AG SERIES (WITH TOWER)

Our most advanced system combines a high-speed gantry with vertical tower storage for fully automated loading and unloading. Maximizes uptime and reduces labor costs and features loading and unloading.

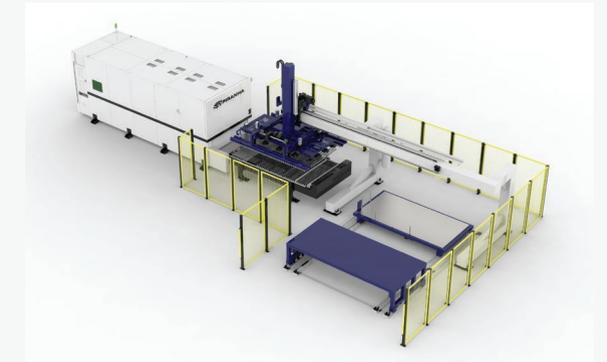
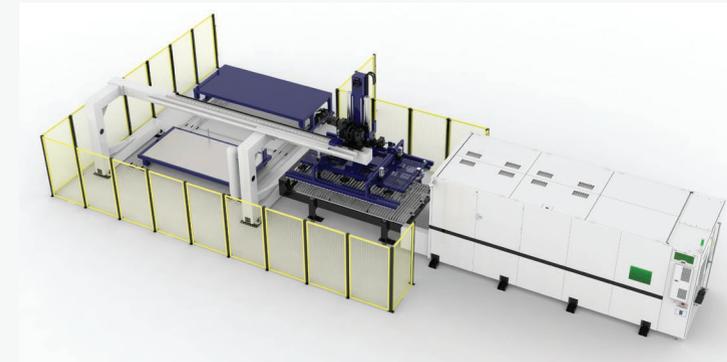
- ▲ Stores multiple sheet types for quick changeovers
- ▲ Full material handling for maximum efficiency



## AG SERIES

A gantry system for fast, automated loading and unloading—without the tower. Saves labor while keeping your laser cutting more.

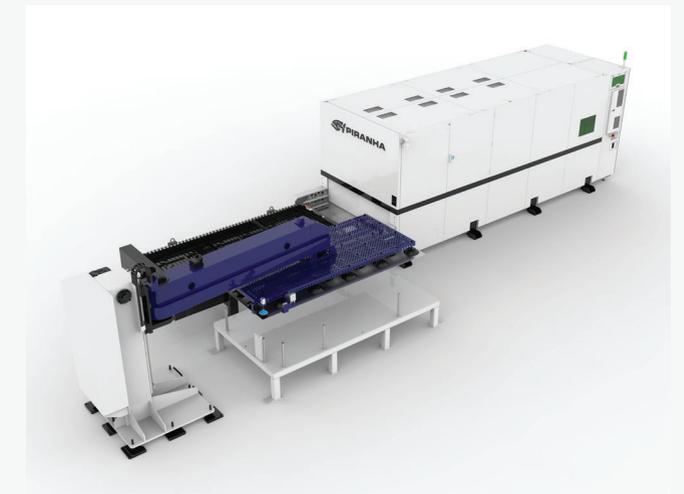
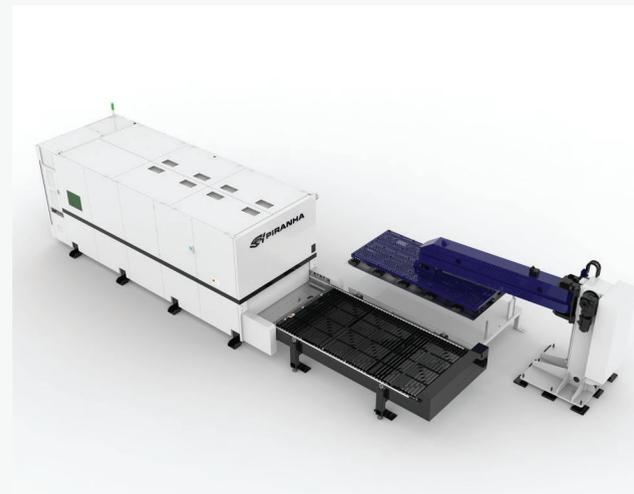
- ▲ Rapid sheet changeovers
- ▲ Smaller footprint, lower investment



## LA SERIES

A compact, affordable loading solution that pivots to place material quickly and safely. Cuts down on manual handling and labor time.

- ▲ Reduces operator lifting
- ▲ Fits tight shop layouts



# Assist Gas Cutting Systems

## AIR ASSIST GAS CUTTING SYSTEMS

Oxygen (O<sub>2</sub>) and nitrogen (N<sub>2</sub>) are the most common assist gases used when cutting metals with a fiber LASER. Air is a combination of both O<sub>2</sub> (21%) and N<sub>2</sub> (78%), small amounts of argon and carbon dioxide, and trace amounts of other gases and water vapor.

Air cutting provides many of the benefits of N<sub>2</sub> cutting along with increased cutting speeds in thicknesses 10ga (0.135”) and thinner and significantly lower cutting gas costs.

Air used in LASER cutting must be available with the correct purity, dryness, pressure, and flow. Typical shop air compressor systems are unable to deliver the air quality and performance necessary. A dedicated air compressor system is required.



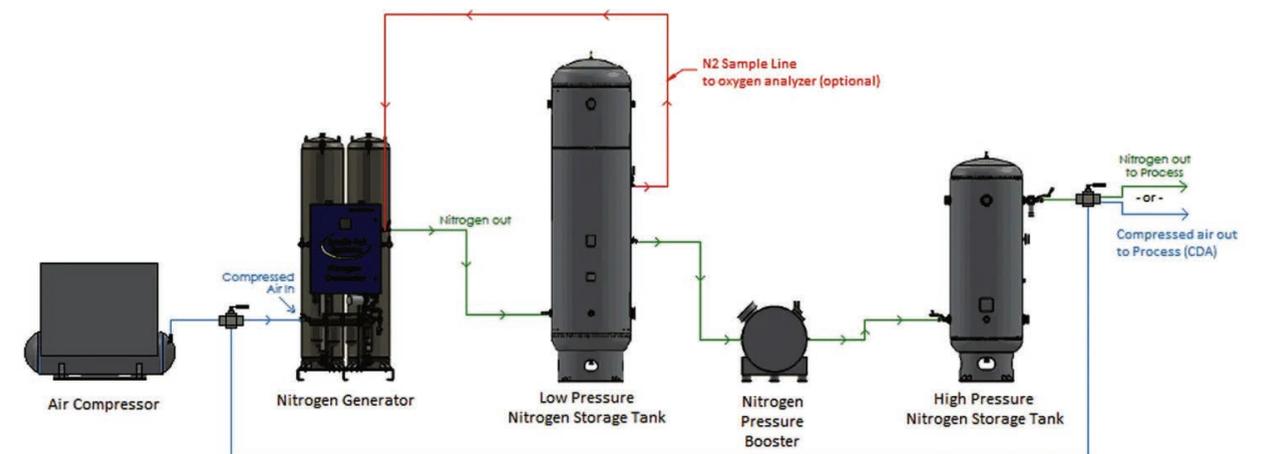
## AIR ASSIST GAS CUTTING SYSTEMS

F30 (SUPPORTS ONE MACHINE)	
Carbon Steel	1,800 SCFH
Delivery Pressure	204 PSIG
Air Compressor	20 HP
Components	<ul style="list-style-type: none"> <li>• Fixed speed rotary screw air compressor</li> <li>• Compressed air tank</li> <li>• Compressed air filtration assembly</li> <li>• Membrane dryer</li> </ul>

F50 (SUPPORTS TWO MACHINES)	
Carbon Steel	3,000 SCFH
Delivery Pressure	204 PSIG
Air Compressor	25 HP Ozen Compressor
Components	<ul style="list-style-type: none"> <li>• Fixed speed rotary screw air compressor</li> <li>• Compressed air tank</li> <li>• Compressed air filtration assembly</li> <li>• Membrane dryer</li> </ul>

## NITROGEN GENERATION SYSTEMS

Nitrogen generator is the separation of air components to capture nitrogen. Nitrogen makes up 78% of the gas in the atmosphere. The rest is 20.9% oxygen, 0.9% argon, 0.03% carbon dioxide and trace gases such as hydrogen, helium, neon, krypton, and xenon. For industrial LASER cutting equipment, PRESSURE SWING ABSORPTION (PSA) is used to provide the high pressures and flow rates required.



NOTE: The maximum flow rate and purity required depend upon the cutting application and edge quality expectations. Other nitrogen generation systems are available to meet different requirements. Please contact Piranha for more information.

## FIBER LASER

PRESS BRAKE

LASER WELDER

SHEAR

BENDING ROLL

IRONWORKER

PLASMA

COMBINATION



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Belvidere, IL 61008

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**PIRANHAFAB.COM**



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