

PIRANHA **FIBER LASERS**



Selecting Your Piranha Machine

When selecting a thermal cutting machine – how do you go about selecting the right one? Use the Piranha Cutting technology comparison to determine which machine fits your needs.

What is your determining factor?

- Cut Quality
- Budget
- Cutting Speed/Thickness

Tech Specs	Air Plasma	HD Plasma	Combo Punch/Plasma	L-Series Laser 1-2.5kW	M-Series Laser 4-6kW	P-Series Laser 6-12kW
Investment*	\$15-\$45K	\$85-\$125K	\$400-\$1,000K+	\$240-\$300K	\$400-\$500K	\$800K +
Parts Per Shift**				1.5kW 2.5kW	4kW 6kW	6kW 12kW
11 ga steel	300	350	710	480 (O2) 740 (N2)	1,150 (N2) 1,270 (N2)	1,315 (N2) 2,600 (N2)
1/4" steel	225	300	660	220 (O2) 370 (O2)	480 (O2) 660 (N2)	750 (N2) 1,530 (N2)
1/2" steel	125	230	560	50 (O2) 160 (O2)	220 (O2) 310 (O2)	320 (O2) 440 (N2)
3/4" steel	75	175	425	N/A 60 (O2)	125 (O2) 165 (O2)	175 (O2) 180 (O2)
Operating Costs**	\$5/HR	\$15/HR	\$15/HR	\$35/HR (N ₂) \$5/HR (O ₂)	\$35/HR (N ₂) \$6/HR (O ₂)	\$35/HR (N ₂) \$7-8/HR (O ₂)
Key Advantages	Low investment Low operating costs	High quality plasma cuts Fastest speeds in thick material	Punch, cut, form, mark, drill, and tap all in one step Eliminates downstream operations	Great value machine for new laser users Makes lasers affordable for low volume production	Productive workhorse machine for a wide range of material types and thickness	High production machine up to 12kW - offering the fastest cycle times in the world

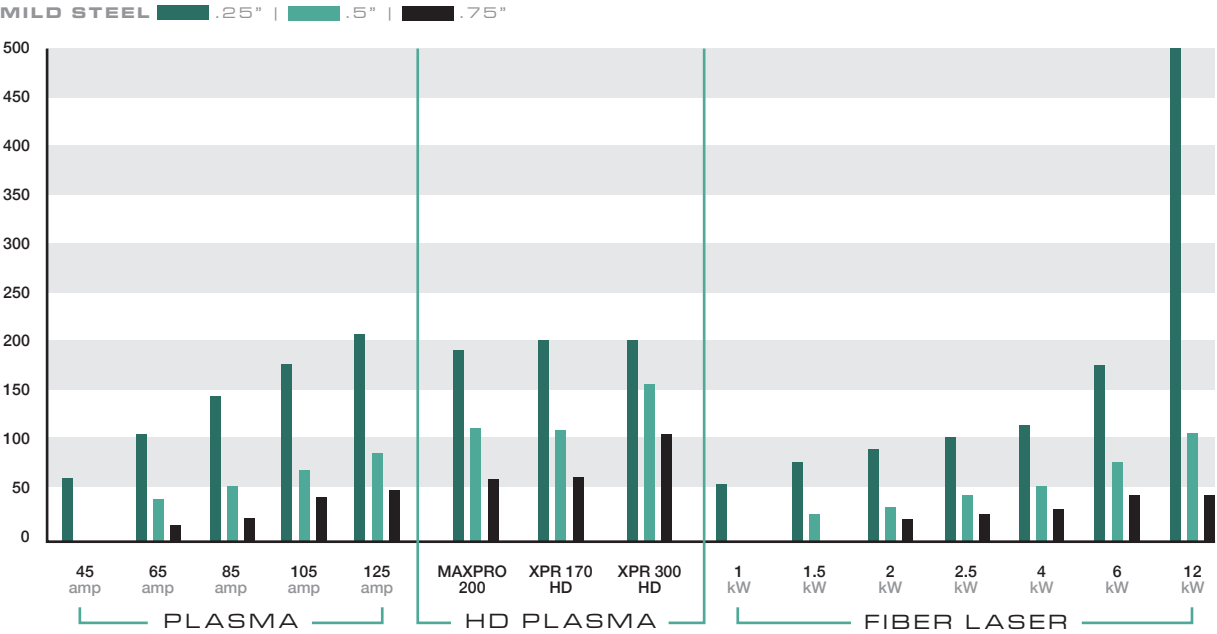
*Investment prices are for reference only. Please refer to actual machine quotes for valid pricing.

**Times and operating costs are approximations based on a sample nest.

What sets Piranha apart?

- Extensive thermal cutting experience
- Wide range of technologies
Air Plasma / HD Plasma / Combination Punch Plasma / Lasers (1-12kW)
- Ability for process comparisons to develop detailed time study reports
Our detailed homework starts with your part drawings. The report will show each process and compare such things as: cut speed, cut quality, gas and electrical usage. This will give a comprehensive view of operating costs and machine investment to help determine the best fit to maximize your profitability.

Approx. Cut Speeds



PLASMA
HYPERTHERM 85



HD PLASMA
HYPERTHERM XPR



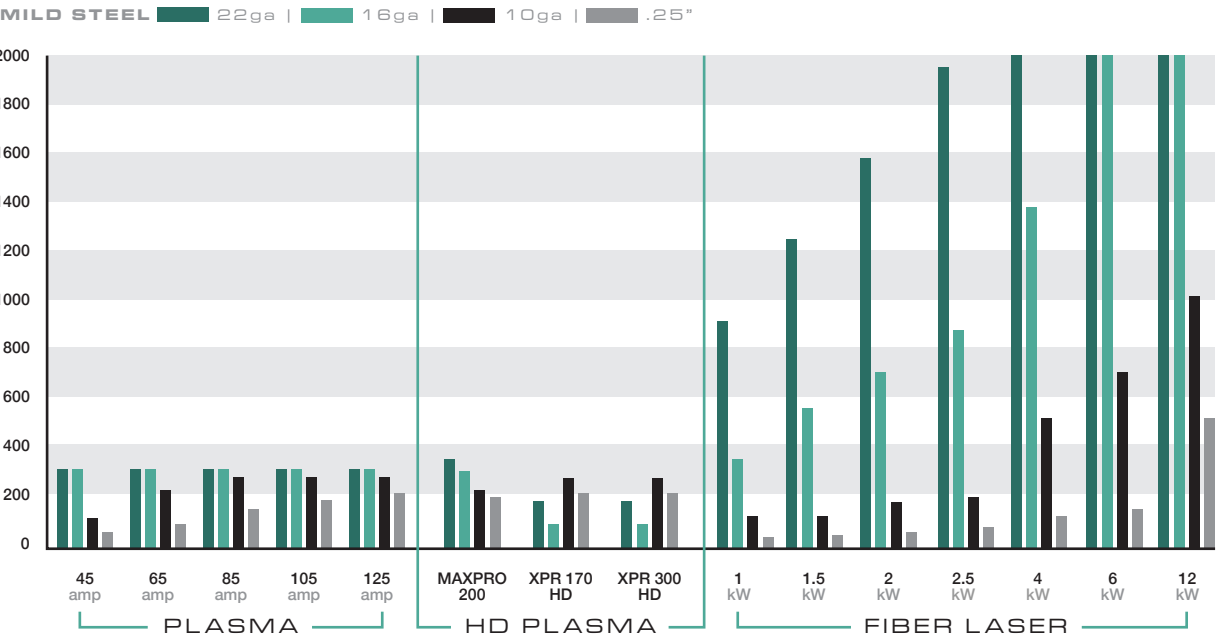
LASER
2.5kW



*Times and operating costs are approximations based on a sample nest with the power and process best suited for each thickness with regard to acceptable cut quality. Individual results may vary depending on conditions such as material composition and consumable/run conditions.

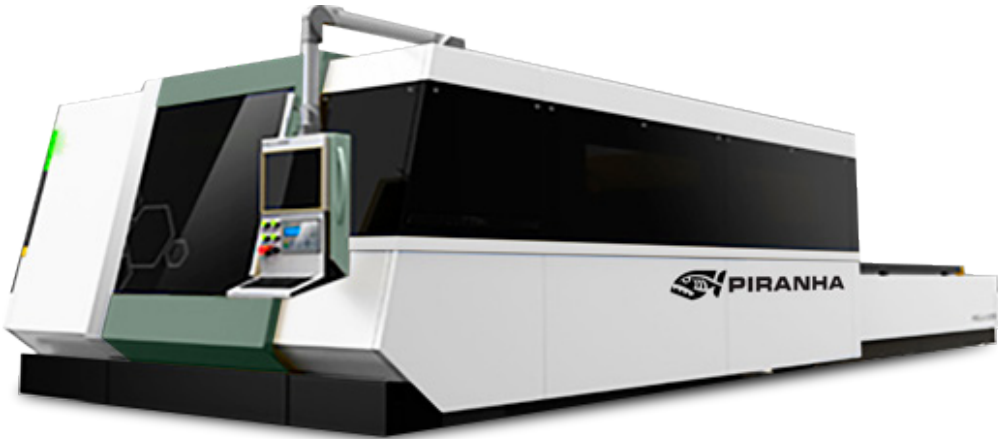
**For material thickness over 1/4" an Auto-Focus cutting head is required. Visit with our Applications Team about the best options for your specific needs.

Approx. Cut Speeds



FIBER LASER L-SERIES

Piranha Laser cutting machines are built with reliability and economy in mind. These tough machines use proven technology to ensure precision and reliability. With power ranges from 1 to 2.5kW. The L-Series provides maximum value for steel processors.



PIRANHA ADVANTAGE

HIGHLIGHTS

- 61" X 122" cutting area
- 1.0 kW, 1.5 kW, 2.0 kW or 2.5 kW IPG fiber laser power (*nLight available on request*)
- Manual or auto-focus cutting head
- Helical rack and pinion positioning system
- 3,150 IPM (80 m/min) maximum travel rate per axis
- Windows® based CNC control
- Sheet edge detection with automatic program transition
- Hypertherm ProNest® LT Smart Start offline programming software
- Red diode laser pointer
- Automatic lubrication system with timer
- Automatic cutting gas control and proportional valve
- Shuttle table with two (2) pallets
- Dust collector

FIBER LASER RESONATOR

- Increased efficiency
- Reduced operating costs
- No laser gas requirement
- No beam path optics or mirrors
- No periodic service requirement

CUTTING TABLE WITH FUME EXTRACTION SYSTEM AND DUST COLLECTOR

- Remove cutting fumes and dust
- Zoned downdraft table standard

PRODUCT SPECS

Machine Model	Piranha Laser L510		
Laser Type	Fiber		
Laser Power	1.0kW		
Optional Laser Power	1.5kW, 2.0kW, 2.5kW		
Drive Type	X-axis - Helical Rack & Pinion Y-axis - Helical Rack & Pinion Z-axis - Ballscrew		

	METRIC		IMPERIAL	
Working Area - Maximum	1550 x 3100	mm	61" x 122"	inch
Positioning Speed - X-axis	80	m/min	3,150	IPM
Positioning Speed - Y-axis	80	m/min	3,150	IPM
Positioning Accuracy - X & Y	0.1	+/- mm	0.004"	+/- inch
Repeatability	0.1	+/- mm	0.004"	+/- inch



MAX SHEET THICKNESS

1.0 kW	METRIC		IMPERIAL	
Carbon Steel	10	mm	0.375	inch
Stainless Steel / N2	4.75	mm	0.187	inch
Aluminum	4	mm	0.157	inch

1.5 kW				
Carbon Steel	12	mm	0.500	inch
Stainless Steel / N2	6	mm	0.250	inch
Aluminum	6	mm	0.250	inch

2.0 kW				
Carbon Steel	19	mm	0.750	inch
Stainless Steel / N2	8	mm	0.312	inch
Aluminum	8	mm	0.312	inch

2.5 kW				
Carbon Steel	19	mm	0.750	inch
Stainless Steel / N2	9.5	mm	0.375	inch
Aluminum	9.5	mm	0.375	inch

**For material thickness over 1/4" an Auto-Focus cutting head is required. Visit with our Applications Team about the best options for your specific needs.*

FIBER LASER M-SERIES

Piranha M-Series laser cutting machines are workhorse machines designed to run a wide range of material types and thicknesses. With power ranges from 4 to 6kW, the M-Series is a highly productive tool for a variety of applications.



PIRANHA ADVANTAGE

HIGHLIGHTS

- 61" X 122" cutting area
- 4.0 kW or 6.0 kW IPG fiber laser power
- Auto-focus cutting head
- Helical rack and pinion positioning system
- 3,464 IPM (88 m/min) maximum travel rate per axis
- Power Automation PA 8000 CNC control
- Sheet edge detection with automatic program translation
- Red diode laser pointer
- Automatic lubrication system with timer
- Automatic cutting gas control and proportional valve
- Shuttle table with two (2) pallets
- Dust collector
- ProNest® programming software (optional)

FIBER LASER RESONATOR

- Increased efficiency
- Reduced operating costs
- No laser gas requirement
- No beam path optics or mirrors
- No periodic service requirement

CUTTING TABLE WITH FUME EXTRACTION SYSTEM AND DUST COLLECTOR

- Remove cutting fumes and dust
- Zoned downdraft table standard

PRODUCT SPECS

Machine Model	Piranha Laser M510
Laser Type	Fiber
Laser Power	4.0kW
Optional Laser Power	6.0kW
Drive Type	X-axis - Helical Rack & Pinion Y-axis - Helical Rack & Pinion Z-axis - Ballscrew

	METRIC		IMPERIAL	
Working Area - Max	1550	x 3100	mm	61" x 122" inch
Workpiece Weight - Max	900	kg		2,000 lbs
Positioning Speed - X-axis	88	m/min		3,464 IPM
Positioning Speed - Y-axis	88	m/min		3,464 IPM
Accelerations - X & Y axis	14.7	m/s2		1.5 g
Positioning Accuracy - X & Y	0.05	+/- mm		0.002" +/- inch
Repeatability	0.03	+/- mm		0.0012" +/- inch

MAX SHEET THICKNESS

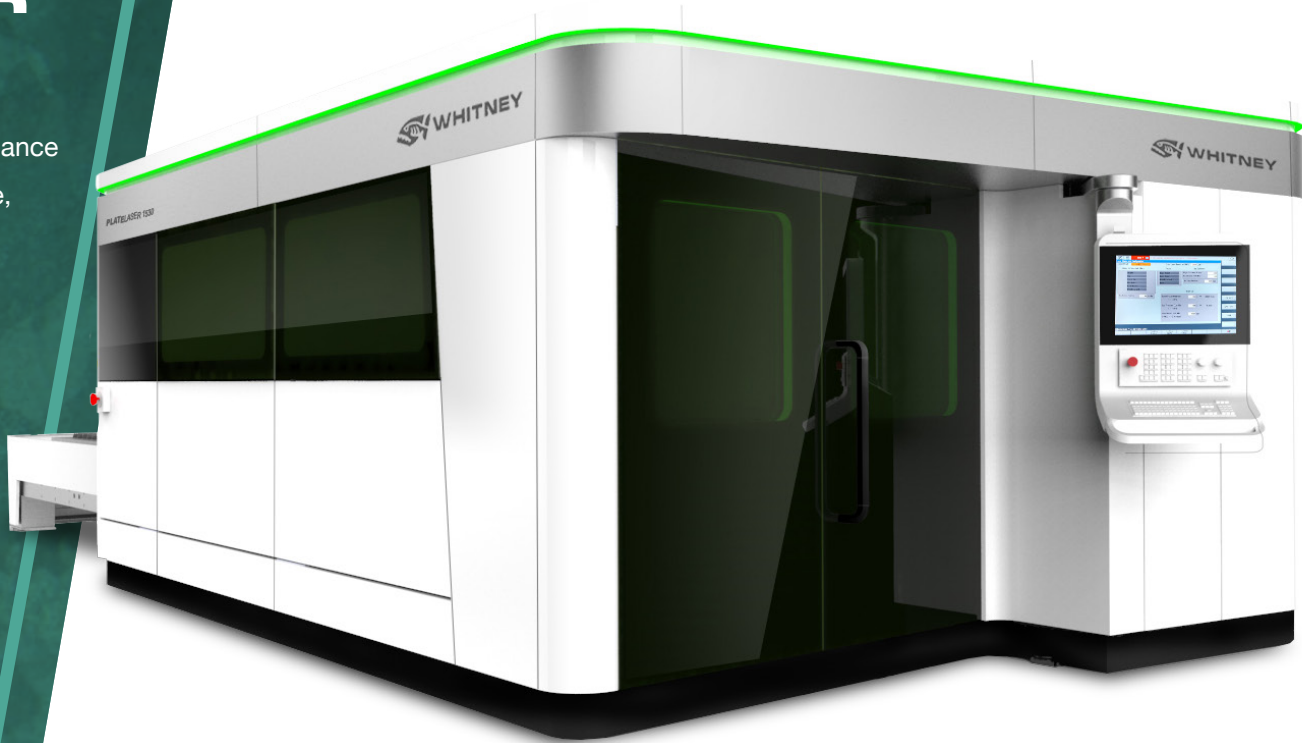
	4.0 kW		METRIC		IMPERIAL	
Carbon Steel	20	mm			0.750	inch
Stainless Steel / N2	20	mm			0.750	inch
Aluminum	15	mm			0.625	inch

	6.0 kW					
Carbon Steel	25	mm			1.000	inch
Stainless Steel / N2	25	mm			1.000	inch
Aluminum	20	mm			0.750	inch



FIBER LASER P-SERIES

Piranha P-series Lasers are built for performance and productivity with a polymer granite base, linear drives, carbon fiber bridge, and a state-of-the-art CNC control. With power ranges from 4 to 12kW and high acceleration speeds, these machines offer some of the fastest cycle times in the world.



PIRANHA ADVANTAGE

HIGHLIGHTS

- ▲ 60" X 120" cutting area
- ▲ 4 kW, 6.0 kW, or 12.0kW fiber laser power
- ▲ Intuitive Siemens CNC control
- ▲ Fastest control pierce times (*Rapid Pierce*)
- ▲ Polymer granite base
- ▲ Carbon fiber bridge
- ▲ Shuttle tables with 2 pallets
12 second pallet exchanges & 20 second spark-to-spark times

	PIRANHA PLATELASER 1530	PIRANHA PLATELASER 3060
Power Options	4kW / 6kW / 12kW	4kW / 6kW / 12kW
Drive Type	Linear Motor	Linear Motor
Working Area (Max)	1524mm x 3048mm / 60in x 120in	3098.8mm x 6197.6mm / 122in x 244in
Approx. Footprint	7m x 11.8m / 23ft x 38.8ft	8.3m x 15m / 27.3ft x 49.4ft
Pos. Speed (x & y axis)	230 m/min / 9,055 IPM	130 m/min / 5,118 IPM
Pos. Accuracy	0.02 +/- mm / 0.001 +/- in	0.02 +/- mm / 0.001 +/- in





★12kW★

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PIRA

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