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**

Cut Quality
- Extensive thermal cutting experience
- Wide range of technologies
- Air Plasma / HD Plasma / Combination Punch Plasma / Lasers (1-12kW)

Budget
- 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.

*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 ¼” an Auto-Focus cutting head is required. Visit with our Applications Team about the best options for your specific needs.

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### WHAT SETS PIRANHA APART?

<table>
<thead>
<tr>
<th>PLASMA</th>
<th>HD PLASMA</th>
<th>FIBER LASER</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAXPRO</td>
<td>200</td>
<td>85</td>
</tr>
<tr>
<td>XPR 170HD</td>
<td>170</td>
<td>105</td>
</tr>
<tr>
<td>XPR 300HD</td>
<td>300</td>
<td>125</td>
</tr>
<tr>
<td>1kW</td>
<td>2kW</td>
<td>1.5kW</td>
</tr>
<tr>
<td>2.5kW</td>
<td>4kW</td>
<td>6kW</td>
</tr>
<tr>
<td>4kW</td>
<td>6kW</td>
<td>12kW</td>
</tr>
</tbody>
</table>

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### TECH SPECS

<table>
<thead>
<tr>
<th>AIR PLASMA</th>
<th>COMBO PUNCH/PLASMA</th>
<th>L-SERIES LASER</th>
<th>M-SERIES LASER</th>
<th>P-SERIES LASER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment*</td>
<td>Low investment</td>
<td>High quality, high cut speeds in thick material</td>
<td>Punch, cut, form, drill, and tap all in one step</td>
<td>Great value machine for new laser users</td>
</tr>
<tr>
<td>Parts Per Shift**</td>
<td>Low operating costs</td>
<td>Fastest speeds in thick material</td>
<td>Eliminates downstream operations</td>
<td>Makes lasers affordable for low volume production</td>
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**Investment prices are for reference only. Please refer to actual machine quotes for valid pricing.

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**For material thickness over ¼” an Auto-Focus cutting head is required. Visit with our Applications Team about the best options for your specific needs.
**PIRANHA LASER**

**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.

### FIBER LASER L-SERIES

- **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**

### PIRANHA ADVANTAGE HIGHLIGHTS

- 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

<table>
<thead>
<tr>
<th>Machine Model</th>
<th>Piranha Laser LS10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser Type</td>
<td>Fiber</td>
</tr>
<tr>
<td>Laser Power</td>
<td>1.0kW</td>
</tr>
<tr>
<td>Optional Laser Power</td>
<td>1.5kW, 2.0kW, 2.5kW</td>
</tr>
<tr>
<td>Drive Type</td>
<td>X-axis - Helical Rack &amp; Pinion</td>
</tr>
<tr>
<td>Positioning Accuracy - X &amp; Y</td>
<td>0.1 +/- mm</td>
</tr>
<tr>
<td>Repeatability</td>
<td>0.1 +/- mm</td>
</tr>
</tbody>
</table>

### MAX SHEET THICKNESS

<table>
<thead>
<tr>
<th>Material</th>
<th>1.0 kW</th>
<th>2.0 kW</th>
<th>2.5 kW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Steel</td>
<td>10 mm, 0.375 inch</td>
<td>12 mm, 0.500 inch</td>
<td>19 mm, 0.750 inch</td>
</tr>
<tr>
<td>Stainless Steel / N2</td>
<td>4.75 mm, 0.187 inch</td>
<td>6 mm, 0.250 inch</td>
<td>9.5 mm, 0.375 inch</td>
</tr>
<tr>
<td>Aluminum</td>
<td>4 mm, 0.157 inch</td>
<td>6 mm, 0.250 inch</td>
<td>8 mm, 0.312 inch</td>
</tr>
</tbody>
</table>

*For material thickness over ¼”, an Auto-Focus cutting head is required. Visit with our Applications Team about the best options for your specific needs.*
Fiber Laser 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.

**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

**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)

**Product Specs**
- **Machine Model**: Piranha Laser M510
- **Laser Type**: Fiber
- **Laser Power**: 4.0 kW
- **Optional Laser Power**: 6.0 kW
- **Drive Type**: X-axis - Helical Rack & Pinion
- **Positioning Accuracy - X & Y**: 0.05 +/- inch, 0.002” +/- inch
- **Positioning Accuracy - X & Y**: 0.03 +/- mm, 0.0012” +/- inch
- **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
- **Repeatability**: 0.03 +/- mm, 0.0012” +/- inch

**Max Sheet Thickness**
- **4.0 kW**
  - 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)
PIRANHA LASER

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.

FIBER LASER P-SERIES

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

PIRANHA ADVANTAGE

- 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
IRONWORKER
PRESS BRAKE
SHEAR
BENDING ROLL
PORTABLE PRESS
LASER
PLASMA
COMBINATION