CNC Plasma Cutting Systems

- Make Money
- Easy to Use
- Improve Production times

Finance Available!

Scan to watch in Action!

Freecall: 1800 809 362 | E: sales@jaymac.net.au | W: www.cncplasmacutters.com.au
Index

1. Introduction
3. DesignEdge Software
4. Benefits
5. Nesting Feature
6. Digital Height Control (DHC)
7. Magnetic Torch Breakaway
8. Benefits of Plasma Technology
9. Option: Engraver Attachment
10. Option: Sheetmetal Fabrication Software
11. Options: Automatic Nesting Software & Art Discs
12. PlasmaCAM Packages
14. Samson Packages
16. Jaymac Advantage
17. Case Study
PlasmaCAM and Samson Plasma Cutting Systems

The PlasmaCAM and Samson robotic plasma cutting systems are powerful and accurate machines which run off a personal computer. These machines are remarkably versatile and easy to use.
PlasmaCAM is a compact table system with a cutting area of 1.2 x 1.2 metres. Samson features a large table with a cutting area of 1.5 x 3.0 metres.
All software and features are otherwise identical for both models.
Both models are available with a number of different machine options to suit required cutting thickness. These package options are outlined on pages 11-14.

DesignEdge Software

The included DesignEdge Software, designed exclusively for plasma cutting, quickly creates impressive designs. You can easily import and reproduce almost any shape from scanned images to computer fonts to common drawing programs (CAD & dxf)
Unlike conventional CNC machines, these are completely integrated cutting systems.
Traditional programming and processing steps have been eliminated and replaced with a graphical interface, where you work directly with the images you want to cut. This eliminates unnecessary importing and exporting between multiple programs. Designing, cutting & modifying is all done on a single platform.
Make shapes from most metals

Cuts precise and intricate flat shapes. Any thickness from 0.3mm through to 25mm can be cut, depending on plasma cutter selection. Virtually any metal can be plasma cut including: steel, stainless steel, aluminium, copper, galvanised sheet and more!

- Fast
- Accurate
- Easy
Designed specifically for plasma cutting, the DesignEdge software is included with the machine. This complete CAD/CAM program not only creates designs, it also runs the machine (no other software is needed). The program is Windows-based and very easy to use. The DesignEdge system lets you work directly with the images that you want to cut, eliminating the need for machine programs, layout drawings or metal patterns.

With PlasmaCAM and Samson your ideas quickly turn into production:

- The DesignEdge software automatically prepares complex drawings for cutting.
- You simply place parts on the screen where you want them to cut from the metal.
- You can read and convert scanned pictures and hand-drawn artwork, CAD files, and many other formats.
- You can add custom lettering to your designs using standard computer fonts.
- You can draw precise geometric shapes and/or modify designs with ease.
**Owner Benefits**

- Keep all your cutting under your control. No need to wait for a contract cutter to get your job done.
- Cut the parts you want when you want them. No need to cut more than you currently require.
- Keep staff productive, cut components when they are quiet.
- Your drawing files belong to you...sending them to another company could result in your drawing being copied or possibly even cut for your opposition!

*Includes specialized DesignEdge design and control software plus comprehensive video manual*

*Servo motors provide accurate, high-speed motion*

*Digital Height control automatically controls torch height*

*Note: Side panels as shown are not included*
Nesting is Easy...

The PlasmaCAM and Samson systems work just as well for cutting geometric parts as they do for cutting metal art. Parts can easily be drawn in the DESIGN EDGE software (included with the machine) and nested together with other parts or quickly duplicated in array.
Digital Height Control

These popular CNC machines come standard with Digital Height Control, giving you optimum cutting performance. The torch holder hovers a precise distance over the metal during cutting, and it raises and lowers between cuts. This, coupled with Pierce Height Control delivers outstanding cutting results and exceptional consumable life.
Magnetic Torch Breakaway Mount

Magnetic Breakaway Machine Torch Mount is included with PlasmaCAM and Samson packages with PMX 85, PMX 105 and PMX 125 Plasma cutting machines. The torch simply snaps off and on, remaining square to the table.

**Tip up collision safety:** Instead of the torch being knocked out of alignment or damaged, the magnetic machine torch mount is designed to breakaway instead, allowing quick, accurate, magnetic reattachment.

**Fast consumable changes:** No more hanging upside down, skinning knuckles and dropping parts into the bowels of the table.

**Accurate:** Because the magnetic breakaway machine torch mount is CNC machined, no matter what happens, the torch will stay true and square to the material....No more cursing, using tiny squares to line up the torch. Just bolt on the mount and fit the torch...it’s that easy!

**Eliminator Air Filtration Kit**

- Clean air ensures improved cut quality and extended consumable life
- 0.85 micron filter - protects against contaminated air
- Auto-drain moisture separator
Benefits of Hypertherm Plasma Technology

Hypertherm Plasma Cutting machines are renowned for their superior performance and reliability. These machines are included as part of the PlasmaCAM and Samson machine packages on pages 11-14.

- Superior speed and cutting capacity
  - Ease of use
    - Higher cut quality
      - Safety
        - Reliability
          - Longer life of parts
            - Lower operating costs
Optional

Engraving Attachment

Add a new dimension to your machine!

Fast & simple

Engraves...

Most Metals

Timber

Plastic

See video online!
www.cncplasmacutters.com.au
Optional
Sheetmetal Fabrication Software for HVAC

Makes high quality ducts and fittings very simply. This software automatically designs 3-dimensional custom HVAC (Heating, Ventilation and Air Conditioning) parts based on your dimensions, materials and other preferences.

Create Fittings Fast:
1. Click on the shape you want and enter the details
2. Preview the 3D shape and flat pattern(s) with connectors, seams, bend lines, etc
3. Print the material list and reports specifying how the part is made.
4. Cut the flat pattern(s) with your PlasmaCAM or Samson machine
5. Form & assemble the pieces to make the finished part
Optional Automatic Nesting Software

This professional software automatically nests components to ensure optimum use of material with minimum waste. Quick and easy to use.

Optional Art Discs

Each professional Art Disc contains numerous silhouette shapes designed for use in various metal projects. The DesignEdge software lets you scale an image to any size. You can use entire images, pieces of images, or any combination - depending on your design, and imagination...

Create custom designs with company logos, name and addresses and much more...
PlasmaCAM Packages

PlasmaCAM is a compact package designed for workshops with limited available space. These machines feature the same high performance features and software as the larger Samson machines. Ideal for engineering, small production components, sheetmetal, colleges, schools, product development etc.

PlasmaCAM Specifications

<table>
<thead>
<tr>
<th>PlasmaCAM Package</th>
<th>5-PCK10/1</th>
<th>5-PCK10/3</th>
<th>5-PCK16</th>
<th>5-PCK22</th>
<th>5-PCK25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting Area</td>
<td>1200 x 1200mm</td>
<td>1200 x 1200mm</td>
<td>1200 x 1200mm</td>
<td>1200 x 1200mm</td>
<td>1200 x 1200mm</td>
</tr>
<tr>
<td>Plasma Machine model</td>
<td>POWERMAX 45</td>
<td>POWERMAX 45</td>
<td>POWERMAX 85</td>
<td>POWERMAX 105</td>
<td>POWERMAX 125</td>
</tr>
<tr>
<td>Output current (Amps)</td>
<td>20-45</td>
<td>20-45</td>
<td>30-85</td>
<td>30-105</td>
<td>30-125</td>
</tr>
<tr>
<td>Duty cycle at full output</td>
<td>50% @ 40°C</td>
<td>50% @ 40°C</td>
<td>60% @ 40°C</td>
<td>80% @ 40°C</td>
<td>100% @ 40°C</td>
</tr>
<tr>
<td>Recommended maximum cutting thickness</td>
<td>12mm</td>
<td>12mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
</tr>
<tr>
<td>Maximum material pierce</td>
<td>10mm</td>
<td>10mm</td>
<td>16mm</td>
<td>22mm</td>
<td>25mm</td>
</tr>
<tr>
<td>Air flow rate and pressure</td>
<td>170 litres/min @ 6.2 bar</td>
<td>170 litres/min @ 6.2 bar</td>
<td>189 litres/min @ 5.9 bar</td>
<td>217 litres/min @ 5.9 bar</td>
<td>260 litres/min @ 5.9 bar</td>
</tr>
</tbody>
</table>

High speed servo motors allow cut speeds up to 8000mm per minute

Desktop Computer Included
PlasmaCAM Package Options

- Desktop computer
  Included in all packages

- Powermax 45
  Included in 5-PCK10/1
  5-PCK10/3 packages

- Powermax 105
  Included in 5-PCK22 package

- Powermax 85
  Included in 5-PCK16 package

- Powermax 125
  Included in 5-PCK25 package
Samson Packages

Samson features a huge 1.5 metre x 3 metre cutting table. Designed for larger workshops where cutting of larger components is necessary. Ideal for engineering, sheetmetal, product development etc. Loaded with features for the professional user.

Samson Specifications

<table>
<thead>
<tr>
<th>Samson Package</th>
<th>5-PCSAMK10/1</th>
<th>5-PCSAMK10/3</th>
<th>5-PCSAMK16</th>
<th>5-PCSAMK22</th>
<th>5-PCSAMK25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting Area</td>
<td>1500 X 3000mm</td>
<td>1500 X 3000mm</td>
<td>1500 X 3000mm</td>
<td>1500 X 3000mm</td>
<td>1500 X 3000mm</td>
</tr>
<tr>
<td>Plasma Machine model</td>
<td>POWERMAX 45</td>
<td>POWERMAX 45</td>
<td>POWERMAX 85</td>
<td>POWERMAX 105</td>
<td>POWERMAX 125</td>
</tr>
<tr>
<td>Output current (Amps)</td>
<td>20-45</td>
<td>20-45</td>
<td>30-85</td>
<td>30-105</td>
<td>30-125</td>
</tr>
<tr>
<td>Duty cycle at full output</td>
<td>50% @ 40°C</td>
<td>50% @ 40°C</td>
<td>60% @ 40°C</td>
<td>80% @ 40°C</td>
<td>100% @ 40°C</td>
</tr>
<tr>
<td>Recommended maximum cutting thickness</td>
<td>12mm</td>
<td>12mm</td>
<td>20mm</td>
<td>25mm</td>
<td>30mm</td>
</tr>
<tr>
<td>Maximum material pierce</td>
<td>10mm</td>
<td>10mm</td>
<td>16mm</td>
<td>22mm</td>
<td>25mm</td>
</tr>
<tr>
<td>Air flow rate and pressure</td>
<td>170 litres/min @ 6.2 bar</td>
<td>170 litres/min @ 6.2 bar</td>
<td>189 litres/min @ 5.9 bar</td>
<td>217 litres/min @ 5.9 bar</td>
<td>260 litres/min @ 5.9 bar</td>
</tr>
</tbody>
</table>

High speed servo motors allow cut speeds up to 8000mm per minute

Large cutting bed fits full size sheets and makes loading easier

Freecall: 1800 809 362    |    E: sales@jaymac.net.au    |    W: www.cncplasmacutters.com.au
Samson Package Options

- Desktop computer
  Included in all packages

- Powermax 85
  Included in 5-PCSAMK16 package

- Powermax 105
  Included in 5-PCSAMK22 package

- Powermax 45
  Included in 5-PCSAMK10/1
  5-PCSAMK10/3 packages

- Powermax 125
  Included in 5-PCSAMK25 package
Tailored Package
We build the package to suit your needs. This means that your plasmaCAM or Samson is a perfectly matched package that will cut the correct material thickness at the correct speed.
All necessary Australian plugs and leads are fitted to allow immediate installation. We do any necessary interfacing with plasma machine.

Warranty*
A 3 year limited warranty applies on both the CNC table systems and software as well as the Hypertherm plasma cutting machines*

Spare Parts
We include a comprehensive torch spare parts kit tailored to suit your machine. Common machine spare parts are kept in stock. These parts can normally be delivered in 1-3 days direct to your door. This ensures that you have minimum downtime if a problem occurs.

Easy to Use
A high quality instructional video DVD which gives step-by-step guidance for assembly and operation is included. This, along with the state-of-the-art DesignEdge cutting/drawing software, is pre-installed on the computer supplied. In addition to this, Jaymac have developed our own set of plain English Complimentary Instructions and Cutting Charts, giving you recommended settings specifically for the Plasma cutter supplied. This ensures that you spend you time making money with your machine; not trying to figure out how to use it effectively.

Technical Support
Jaymac has experienced technical support staff to assist you every step of the way. You can contact us by phone or email with any enquiry. Jaymac has specialised in the welding and cutting industry since 1980...we are not just another machinery importer.

Delivery
Free delivery to your door.

* Warranty is subject to PlasmaCAM, Hypertherm and Jaymac terms and conditions.
Jamie Petith of Port Stephens Sheet Metal purchased a complete CNC Plasma System from Jaymac back in October 2012.

In Jamie’s words “I wouldn’t be in business without it!”

We manufacture components such as hoppers, chutes, transitions, etc from a variety of materials. We do a lot in 3mm stainless steel. Some of the components are quite complex with a lot of holes. We also do a lot of aluminium work where we cut out a lot of brackets and flanges up to 12mm thick.

“The jobs are mostly sent to us electronically as a CAD drawing (DXF) and some I will draw or edit in the HVAC software. From there we simply upload the drawing file into the CNC Plasma System, convert it to a cut path, load the material on the bed and hit ‘cut’. Moments later we have an accurately cut component ready for assembly.

Jaymac’s new Samson machine is just so freeflowing and easy to operate. In just a couple of weeks I had it mastered. I have now even trained up all my tradesman in the workshop and so they can all run the machine to cut out whatever they need to without any help.

“It has added a lot of value to our whole business. Previously we were turning away business or outsourcing to laser work that I wouldn’t dare take on because I was never confident of being able to produce it accurately. With additional capability, reduced costs, and substantially increased efficiency - the decision to invest the 30-odd grand we paid for the package was a no-brainer!”
CNC Plasma Cutting Systems

Freecall: 1800 809 362
E: sales@jaymac.net.au
W: www.cncplasmacutters.com.au