Hypertherm

**powermax1000**

*G3 SERIES*

The performance standard for air plasma cutting

3/4" (19 mm)
Recommended capacity

1" (25 mm)
Maximum capacity

1 1/4" (32 mm)
Severance capacity

ISO 9001
The third generation of plasma cutting has a second great product!

Hypertherm – the world leader in plasma cutting technology

When you do only one thing, you’d better do it better than anyone else. As the only major manufacturer to focus exclusively on plasma cutting technology, Hypertherm is committed to providing the highest quality systems in the world: improving the performance, reliability and value of our systems, and serving and supporting Hypertherm users. This commitment to technology leadership, quality and support makes Hypertherm the first choice of the true cutting professional.

Superior performance by hand or machine

The Powermax1000 is the latest addition to the Powermax G3 Series. With advanced technologies in both power supply and torch, Hypertherm G3 products cut faster and more economically than any system available today. The Powermax1000’s Auto-voltage™ circuit provides automatic adjustment to any input voltage from 200 to 600 volts, 1- or 3-phase (CE 230 to 400 V 3-phase only). A state-of-the-art, microprocessor-based architecture assures optimum system reliability. Add to this Hypertherm’s advanced torch technology and easy-to-read controls, and you have the most advanced plasma cutter money can buy.

- **Recommended capacity:** metals to 3/4 inch (19 mm) at cutting speeds over 20 inches (500 mm) per minute.
- **Maximum capacity:** metals to 1 inch (25 mm) at cutting speeds over 10 inches (250 mm) per minute.
- **Severance capacity:** rough cut on metals up to 1 1/4 inches (32 mm) at low speed.

The cut capacities above are on mild steel. Some metals, such as aluminum and stainless steel, may require up to 20% reduction in cut speed and capacity.

Machine torch operation

- Up to 1/2 inch (12 mm) Maximum capacity.
- Up to 3/8 inch (10 mm) Recommended capacity.

The power supply: the heart of the machine

Advanced, intelligent technology gives the Powermax1000 the power to cut with greater speed, quality and efficiency.

- 60-amp, 8.4-kilowatt output provides ample power for clean, quick cutting.
- Auto-voltage runs on voltages from 200 to 600 volts, 1- or 3-phase, (CE 230 to 400 V 3-phase only) without the need for manual rewiring.
- New Boost Conditioner™ circuit compensates for input voltage variation.
- Advanced, digitally-controlled inverter design delivers continuously adjustable, constant current output from 20 to 60 amps, permitting high-quality cuts over a wide range of metal thicknesses.
- An active electronic pilot arc controller for cutting expanded metal or grating.
- New gouging setting for easier operation and faster metal removal.
- CNC/robotic machine interface is standard on all units, allowing automated control and rapid changeover to mechanized operation.
The torch: intelligent design combines performance, durability, comfort and safety

The Powermax1000 features Hypertherm’s patented T60 safety trigger torch and T60M mechanized torch, which deliver outstanding cut performance, reliability and operator comfort.

- The longest consumable life in the industry, and we’ll prove it. Patented HyLife® electrodes last longer than ordinary designs.
- Patented Dual-threshold™ pilot circuit significantly reduces nozzle wear by boosting pilot current precisely when needed.
- Patented nozzle shield lets you drag the torch on the workpiece at full output, without damaging consumables, and protects the nozzle from molten metal spray and double arcng.
- Postflow cooling reduces torch stress.
- Hypertherm’s patented Coaxial-assist™ jet design boosts cutting speed as much as 20% over conventional designs.

- No breakable ceramic parts.
- Patented “blow-back” technology provides a pilot arc without excessive high-frequency interference.
- Consumables for gouging, extended-nozzle cutting, pipe saddle cutting and other applications.

Engineered for superior reliability

The Powermax1000 is designed for heavy use under the harshest conditions.

- Mechanical and electrical designs are validated through aggressive, accelerated testing.
- New fan-on-demand feature minimizes dust ingestion.
- Chemically cross-linked torch cable jacket provides improved resistance to molten spray and cut-through.
- CSA/NRTL and CE certifications comply with the highest safety standards.
- IP23CS compliance for resistance to water damage.
- The Powermax1000 is backed by a full three-year power supply warranty and a one-year torch warranty. No parts excluded. Examine competitive policies closely.

Options for specialized requirements

FineCut™ Consumables for superior cut quality on thin plate, mild and stainless steel.

Circle Cutting Guide

Leather Cutting Guide

Air Filtration Kit with a .85 micron filter and auto-drain filter bowl.

Wheel Kit for easy mobility.

Heat Shield protects hands from excessive reflective heat.

Relative cutting cost, Powermax1000 vs. competitors

1/8” (12 mm) mild steel

Operating cost calculations are based on consumable price, tested consumable life, tested cutting speed, estimated labor and power costs. Competitive units are in the 50 – 80 amp cutting range.
High-performance portable plasma cutting system

Options - (Part number)
- Circle cutting guide - 027668
- Wheel kit - 128646
- Leather cable covers - 024548
- Air filtration kit - 128647
- Extended work cable - 128717
- Hand heat shield - 128658

Input voltages
- 200 – 600 V, 1/3-PH, CSA
- 230 – 400 V, 3-PH, CE

Output voltage
- 140 VDC

Duty cycle
- 50% @ 60 A, 230 – 600 V, 3-PH
- 40% @ 60 A, 200 – 208 V, 3-PH

Maximum OCV
- 300 VDC

Dimensions
- 23.1” (586 mm) D; 10.7” (271 mm) W; 19.6” (498 mm) H

Weight with torch
- 83 lbs (37 kg)

Gas supply
- Clean, dry, oil-free air or nitrogen

Flow rate
- 400 scfh; 6.7 cfm (189 l/min) at 90 psi (6.2 bar)

Flow pressure
- 70 psi (4.8 bar) flowing, 25’ leads
- 75 psi (5.1 bar) flowing, 50’ leads

Ordering information

<table>
<thead>
<tr>
<th>Systems part numbers</th>
<th>With 25’ (7.5 m) torch</th>
<th>With 50’ (15 m) torch</th>
<th>With 75’ (23 m) torch</th>
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</thead>
<tbody>
<tr>
<td>200 – 600 V, 1/3-PH, CSA</td>
<td>083178</td>
<td>083179</td>
<td>083210</td>
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<tr>
<td>Hand system</td>
<td>083182</td>
<td>083183</td>
<td>083212</td>
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<tr>
<td>230 – 400 V, 3-PH, CE</td>
<td>083192</td>
<td>083193</td>
<td>083211</td>
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<tr>
<td>Hand system</td>
<td>083194</td>
<td>083195</td>
<td>083213</td>
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</tbody>
</table>

Specifications

A: Cutting-current output control, 20 – 60 amps
B: Gas test/set position
C: Air pressure range, gouging mode
D: Air pressure adjust control knob
E: Cutting mode selector switch
F: Pilot arc control mode
G: Normal cutting mode
H: Gouging mode
I: Power on indicator
J: Air pressure range, cutting mode

Operating data

<table>
<thead>
<tr>
<th>Material</th>
<th>Thickness (inches) (mm)</th>
<th>Current (amps)</th>
<th>Maximum travel speed (ipm) (mm/min.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild steel</td>
<td>26 GA. 0.5</td>
<td>25</td>
<td>638 (16205)</td>
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<tr>
<td></td>
<td>10 GA. 3.4</td>
<td>40</td>
<td>151 (3835)</td>
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<tr>
<td></td>
<td>¼” (6.4 mm)</td>
<td>60</td>
<td>132 (3353)</td>
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<td></td>
<td>½” (12 mm)</td>
<td>60</td>
<td>63 (1600)</td>
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<td></td>
<td>⅜” (16 mm)</td>
<td>60</td>
<td>42 (1067)</td>
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<td>⅝” (19 mm)</td>
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<td>31 (787)</td>
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<td>1” (25 mm)</td>
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<td>22 (599)</td>
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<td>Aluminum</td>
<td>¼” (0.8 mm)</td>
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<td>610 (15494)</td>
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<td>½” (3.2 mm)</td>
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<td>204 (5182)</td>
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<td></td>
<td>¾” (6.4 mm)</td>
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<td>145 (3683)</td>
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<td></td>
<td>1” (25 mm)</td>
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<td>74 (1880)</td>
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<td></td>
<td>1½” (38 mm)</td>
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<td>51 (1295)</td>
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<td>1⅜” (32 mm)</td>
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<td>33 (889)</td>
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<td>Stainless steel</td>
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<td>14 GA. 1.9</td>
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<td>⅜” (16 mm)</td>
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<td>35 (889)</td>
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<td>⅝” (19 mm)</td>
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<td></td>
<td>1” (25 mm)</td>
<td>60</td>
<td>18 (457)</td>
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</table>

*Maximum travel speeds are the results of Hypertherm’s laboratory testing. For optimum cut performance, actual cutting speeds may vary based on different cutting applications. Refer to the operator’s manual for more details.

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