

# Hypertherm®

## powermax1000® G3 SERIES™

### Handheld or mechanized plasma system for cutting and gouging metal

#### Operating data

Cut capacity	Handheld	Mechanized pierce
Recommended	3/4" (19 mm)	
Maximum	1" (25 mm)	1/2" (12 mm)
Severance	1 1/4" (32 mm)	

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Gouge capacity	
Metal removed per hour:	11 lbs (4.9 kg)
Depth x width:	3/16" (5 mm) x 1/16" (2 mm)

#### Key advantages

- Auto-voltage™ automatically adapts to any incoming power from 200 V – 600 V, 1- or 3-phase.
- Coaxial-assist™ jet technology delivers fast cut speeds.
- Boost Conditioner™ compensates for input voltage variations, providing improved performance on low-line voltage, on motor generators and on fluctuating input power.
- Reliability-focused design improves uptime and maximizes return on investment.
- CNC interface and Easy Torch Removal (ETR™) provide increased versatility for handheld and mechanized use.

#### Applications

- Hand cutting
- Gouging
- Mechanized cutting
  - X-Y tables
  - Track systems
  - Pipe systems
  - Robotic systems

#### Standard system components

- Power supply
- T60 hand torch or T60M machine torch
- Extra consumables for cutting
- Work cable with clamp, 15' (4.5 m)



T60 hand torch

T60M machine torch



## Specifications

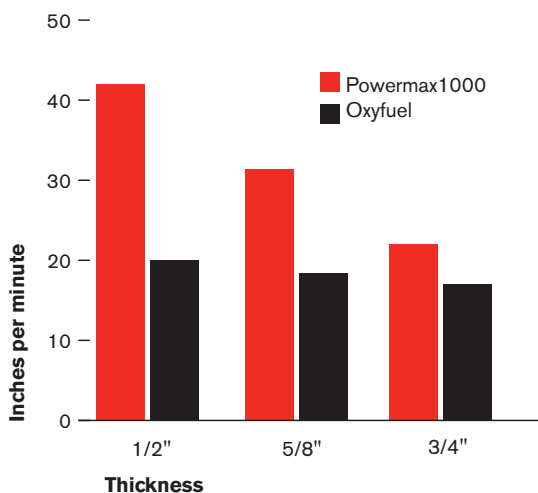
Input voltages	200 – 600 V, 1/3-PH, 50 – 60 Hz, CSA 230 – 400 V, 3-PH, 50 – 60 Hz, CE
Input current @ 8.4 kW output	200/208/230/240/480 V, 1-PH: 50/48/44/42/22 A 200/208/230/240/400/480/600 V, 3-PH: 30/29/26/24/15/12/11 A
Rated output voltage	140 VDC
Output current	20 – 60 A
Duty cycle @ 40°C (104° F)	50% @ 60 A, 230 – 600 V, 3-PH 50% @ 60 A, 230 – 480 V, 1-PH 40% @ 60 A, 200 – 208 V, 3-PH 40% @ 60 A, 200 – 208 V, 1-PH
Output for 100% duty cycle @ 40°C (104° F)	38 A @ 200 – 208 V 42 A @ 230 – 600 V
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) @ 90 psi (6.2 bar)
Flow pressure	70 psi (4.8 bar) flowing, 25' leads 75 psi (5.1 bar) flowing, 50' leads
Input power cable length	20' (6 m)
Work cable length	15' (4.5 m)
Warranty period	Full 3-year power supply warranty and a 1-year torch warranty.

## Engine-driven generator operation

Engine drive rating (kW)	System output (amps)	Performance (arc stretch)
15	60	Full
12	60	Limited
12	40	Full
8	40	Limited
8	30	Full

## Powermax1000 versus oxyfuel

Cut speed on mild steel



# Hypertherm®

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## Cut chart

Material	Thickness		Current (amps)	Maximum cut speed*		
	(inches)	(mm)		(ipm)	(mm/min.)	
Mild steel	26 GA	0.5	25	638	16205	
	10 GA	3.4	40	264	6706	
	1/4	6.4	60	132	3353	
	3/8	9.5	60	63	1600	
	1/2	12.7	60	42	1067	
	5/8	15.9	60	31	787	
	3/4	19.0	60	22	559	
	Aluminum	1/32	0.8	25	610	15494
1/8		3.2	40	204	5182	
1/4		6.4	60	145	3683	
3/8		9.5	60	74	1880	
1/2		12.7	60	51	1295	
5/8		15.9	60	33	838	
Stainless steel		26 GA	0.5	25	631	16027
		14 GA	1.9	40	221	5613
	1/4	6.4	60	110	2794	
	3/8	9.5	60	53	1346	
	1/2	12.7	60	35	889	
	5/8	15.9	60	26	660	
	3/4	19.0	60	18	456	

\*Maximum cut 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 manual for more details.

## Ordering information

	System part numbers			
	With 25' (7.6 m) torch	With 50' (15 m) torch	With 75' (23 m) torch	
<b>200 – 600 V, 1/3-PH, CSA<sup>1</sup></b>	Handheld system	083178	083179	083210
	Mechanized system	083182	083183	083212
<b>230 – 400 V, 3-PH, CE<sup>2</sup></b>	Handheld system	083192	083193	083211
	Mechanized system	083194	083195	083213

<sup>1</sup> For use in the Americas and Asia, except China.

<sup>2</sup> For use in countries that require CE, CCC or GOST marks.



This system meets the RoHS directive restricting the use of lead, mercury, cadmium and other hazardous compounds.

## Capacity ratings

There is no industry standard for rating plasma systems, so it is important to take care when comparing products from different manufacturers.

### Handheld cutting

**Recommended** – The thickness of mild steel on which the system delivers good cut quality and speeds at or greater than 20" (500 mm) per minute. Eighty percent or more of cutting should be at the recommended thickness.

**Maximum** – The thickness of mild steel on which the system delivers good cut quality but at reduced speeds of 10" (250 mm) per minute. Twenty percent or less of cutting should be at the maximum thickness.

**Severance** – The thickness of mild steel that can be reasonably severed, but with poor cut quality and at slow speed. Cutting the severance thickness should be infrequent.

### Mechanized cutting

**Maximum** – The thickness of mild steel that may be pierced with good cut quality and without excessive wear on the consumable parts. If edge starting, the cut capacity is the same as handheld capacity.

Note: For additional information on mechanized cutting speeds and thicknesses, refer to product operator manuals.