

# Hypertherm®

## powermax45®

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

	Thickness	Minimum cut speed
Handheld cut capacity		
Recommended	1/2" (12 mm)	20 ipm (500 mm/min)
	3/4" (19 mm)	10 ipm (250 mm/min)
Severance	1" (25 mm)	5 ipm (125 mm/min)
	Mechanized pierce capacity	
	3/8" (10 mm)	
	Metal removal rate	Groove profile
Gouge capacity		
	6.2 lbs. (2.8 kg) per hour	.13" (3.3 mm) D x .22" (5.5 mm) W

#### Key power supply advantages

- Small size and light weight provide unmatched portability among 1/2" (12 mm) machines.
- Boost Conditioner™ (on CSA models) compensates for input voltage variations on 200 – 240 V lines, providing improved performance on low-line voltage, on motor generators and on fluctuating input power.
- CNC interface and FastConnect™ torch connection increase versatility for handheld and mechanized usage.
- Powercool™ design cools internal components more effectively for greater system reliability and improved uptime.

#### Key torch advantages

- Conical Flow™ increases arc energy density for superior cut quality with little dross.
- Patented drag-cutting technology makes it easy to use – even for first-time operators.
- Dual-angle design extends nozzle life and lowers operating cost.

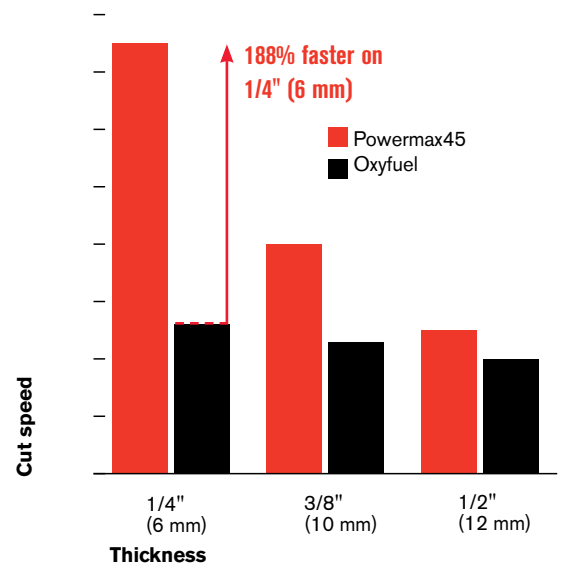


T45v hand torch

T45m machine torch



#### Relative cut performance on mild steel



## Specifications

<b>Input voltages</b> (±10%)	CSA 200 – 240 V, 1-PH, 50-60 Hz CE 230 V, 1-PH, 50-60 Hz 400 V, 3-PH, 50-60 Hz
<b>Input current @ 5.95 kW</b>	CSA 200/230 V, 1-PH, 34/28 A CE 230 V, 1-PH, 30 A 380/400 V, 3-PH, 10.5/10 A
<b>Output current</b>	20 – 45 A
<b>Rated output voltage</b>	132 VDC
<b>Duty cycle @ 40° C (104° F)</b>	CSA 50% @ 45 A, 200 – 240 V, 1-PH 60% @ 41 A, 200 – 240 V, 1-PH 100% @ 32 A, 200 – 240 V, 1-PH CE 50% @ 45 A, 230 V, 1-PH 60% @ 41 A, 230 V, 1-PH 100% @ 32 A, 230 V, 1-PH CE 50% @ 45 A, 380/400 V, 3-PH 60% @ 41 A, 380/400 V, 3-PH 100% @ 32 A, 380/400 V, 3-PH
<b>Open circuit voltage (OCV)</b>	275 VDC
<b>Dimensions with handles</b>	16.75" (426 mm) D; 6.75" (172 mm) W; 13.7" (348 mm) H
<b>Weight with 20' (6.1 m) torch</b>	CSA 37 lbs (17 kg) CE 35 lbs (16 kg)
<b>Gas supply</b>	Clean, dry, oil-free air or nitrogen
<b>Recommended gas inlet flow rate / pressure</b>	Cutting: 360 scfh, 6 scfm (170 l/min) @ 80 psi (5.5 bar) Gouging: 360 scfh, 6 scfm (170 l/min) @ 60 psi (4.1 bar)
<b>Input power cable length</b>	10' (3 m)
<b>Power supply type</b>	Inverter – IGBT

## Engine-driven generator operation

Engine drive rating (kW)	System output (amps)	Performance (arc stretch)
8	45	Full
6	45	Limited
6	30	Full

## Cut chart

Material	Thickness		Current (amps)	Maximum cut speed <sup>1</sup>	
	(inches)	(mm)		(ipm)	(mm/min)
Mild steel	10 GA	3	45	175	4445
	1/4	6	45	75	1905
	3/8	10	45	40	1016
	1/2	12	45	25	635
	3/4	19	45	10	254
	1	25	45	5	127
Stainless steel	10 GA	3	45	150	3810
	1/4	6	45	55	1397
	3/8	10	45	32	813
	1/2	12	45	18	457
	3/4	19	45	9	229
	Aluminum	10 GA	3	45	280
1/4		6	45	100	1397
3/8		10	45	42	813
1/2		12	45	25	457
3/4		19	45	10	229

<sup>1</sup> 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

Input voltages	Handheld systems		Mechanized systems		
	T45v torch 20' (6 m)	T45v torch 50' (15 m)	T45m torch 25' (7.6 m)	T45m torch 35' (10.7 m)	T45m torch 50' (15 m)
200 – 240 V CSA <sup>2</sup>	088016	088017	088022	088023	088024
230 V CE <sup>3</sup>	088018	088019	088025	088026	088027
400 V CE <sup>3</sup>	088020	088021	088028	088029	088030

<sup>2</sup> For use in the Americas and Asia, except China.

<sup>3</sup> For use in countries that require CE, CCC or GOST marks.

## Custom configurations (select power supply, torch, and other components)

### Power supply options

	Power supply with CPC port and 50:1 voltage ratio
200 – 240 V CSA	088013
230 V CE	088015
400 V CE	088014

### Component options

Cable length	Torches		Control cables		
	T45v	T45m	Remote pendant	CNC spade plug <sup>4</sup>	CNC spade plug <sup>5</sup>
20' (6 m)	088008				
25' (7.6 m)		088010	128650	228350	023206
35' (10.7 m)		088011			
50' (15 m)	088009	088012	128651	228351	023279

<sup>4</sup> For use with automation equipment that requires divided arc voltage.

<sup>5</sup> For use when divided arc voltage is not required.

## Torch consumable parts

Nozzles and electrodes are available in various quantities. Contact your distributor for more information.

Consumable type	Torch type	Amperage	Nozzle	Shield/Deflector	Retaining cap	Electrode	Swirl ring
Drag-cutting	Hand	30	220480	220569	220483	220478	220479
		45	220671	220674	220713	220669	220670
Mechanized	Machine	45	220671	220673	220713 or 220719 (Ohmic)	220669	220670
Gouging	Hand		220672	220675	220713	220669	220670
	Machine						



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



**Engineered and assembled in the USA**

Power supplies have a 3-year warranty and torches have a 1-year warranty.

**ISO 9001:2008**

# Hypertherm®

## Cut with confidence™

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For more information, contact your authorized Hypertherm dealer or visit [www.hypertherm.com](http://www.hypertherm.com).