Hypertherm®

Powermax125®

Professional-grade plasma metal cutting and gouging system for handheld cutting 1½" and mechanized piercing 1".

Capacity	Thickness	Cut speed
	Cutting	
Recommended	1-1/2"	18 ipm
	1-3/4"	10 ipm
Severance (hand cutting)	2-1/4"	5 ipm
Pierce*	1"	

* Pierce rating for handheld use or with automatic torch height control

Capacity	Metal removal rate	Groove profile*
	Gouging	
Typical gouge	27.6 lbs/hr	0.17–0.31" D x 0.24–0.39" W

* Actual groove profile varies with torch angle, arc stretch, and technique

Maximum productivity

- Finish jobs faster with cut speeds 5 times greater than oxyfuel on 1/2" mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.
- Maximize your cutting time with 100% duty cycle.

Low operating costs

- Reduce costs with consumable life up to four times longer than other systems in this amperage range.
- Electrode end-of-life detection protects the torch and workpiece from damage by automatically stopping power when the electrode is overused.

Easy-to-use for cutting and gouging

- No need to change the air pressure. Smart Sense™ technology ensures that it is always correctly set.
- Tackle different jobs with multiple, easy-to-use torch styles.

Built and tested to withstand the harshest conditions

- Duramax® Hyamp™ torches are designed for high-impact and heat resistance.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Low maintenance maximizes uptime.

Duramax® Hyamp™ standard torch styles
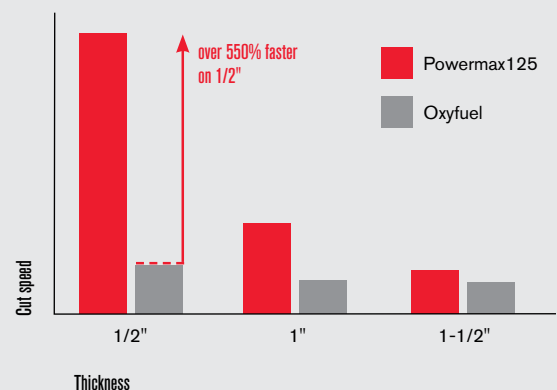(for more torch options, see www.hypertherm.com)

85° hand torch

15° hand torch

180° mini machine torch

180° full-length machine torch

Relative cut performance on mild steel

over 550% faster on 1/2"

■ Powermax125
■ Oxyfuel

Cut speed

| 1/2" | 1" | 1-1/2" |

Thickness

Specifications

Input voltages	480/600 V, 3-PH, 50/60 Hz
Kilowatt output	21.9 kW
Input current @ 21.9 kW	480/600 V, 31/24 A
Output current	30–125 A
Rated output voltage	175 VDC
Duty cycle @ 104° F	100% @ 125 A, 480/600 V, 3-PH
Open circuit voltage (OCV)	320 VDC
Dimensions with handles	23.3" D; 10.8" W; 20.0" H
Weight w/25' torch	480 V 105.7 lbs 600 V 104.7 lbs
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 260 l/min (550 scfh) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh) @ 4.1 bar (60 psi)
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	40 kW for full 125 A output
Certifications	CSA-certified for use in the Americas and Asia, except China.
Warranty	Power supplies have a 3-year warranty and torches a 1-year warranty.

Ordering information

Below are the standard system configurations, which include a power supply, torch and work cable.

Power supplies	Voltage configuration	85° hand torch — 25'	85° hand torch — 50'	85° and 15° hand torch — 25' (without remote pendant)	85° and 15° hand torch — 50' (with remote pendant)	180° full-length machine torch — 25' (with remote pendant)	180° full-length machine torch — 25' (without remote pendant)	180° full-length machine torch — 25' (with I/O cables, no pendant)	180° full-length machine torch — 50' (with remote pendant)	180° full-length machine torch — 50' (without remote pendant)	180° full-length machine torch — 50' (with I/O cables, no pendant)	180° full-length machine torch and 85° hand torch — 50'/25' (with remote pendant)
Power supply with CPC port and voltage divider	480 V	059536	059537	059538	059569	059539			059540			059541
	600 V	059546	059547	059555	059570	059552			059553			059554
Power supply with CPC port, voltage divider, and serial port	480 V						059542	059544		059543	059545	
	600 V						059550	059548		059551	059549	

Custom configurations (select power supply, torch, consumable kit, work cable, and other components)

Power supply options

	Power supply with CPC port and voltage divider	Power supply with CPC port, voltage divider, and serial port
480 V CSA	059488	059489
600 V CSA	059509	059510

Starter kit consumable options

	Handheld	Mechanized	Mechanized with ohmic retaining cap
Kit	428099	428100	428101

Torch options

	Hand torches		Machine torches		Robotic torches			Long torches				
Cable length	85°	15°	180°	Mini 180°	45°	90°	180°	2', 45°	2', 90°	4', 45°	4', 90°	6', 90°
15'			059519	059514								
25'	059492	059495	059520	059515	059564	059565	059566	059562	059563	059567	059568	059623
35'			059521	059516								
50'	059493	059496	059522	059517	059670	059671	059672	059579	059580	059581	059582	059624
75'	059494	059497	059523									
150'	059664	059665		059666						059667	059668	

*150' torch leads are compatible only with Powermax125 systems with a serial number of 125-007944 or higher.

Cable options

	Work cables			Control cables					
Cable length	Hand clamp	C-style clamp	Ring terminal	Remote pendant	CNC, spade connector, divided voltage	CNC, spade connector, no divided voltage	CNC, D-sub connector, divided voltage	RS-485 Serial comm, unterminated	RS-485 Serial comm, D-sub
25'	223292	223298	223295	128650	228350	023206	223048	223236	223239
50'	223293	223299	223296	128651	228351	023279	123896	223237	223240
75'	223294	223300	223297	128652					
150'	223737		223744	428755					

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	Swirl ring	Electrode
Drag-cutting	Hand	45	420158	420172	220977	220997	220971
		65	420169	420172			
		125	220975	420000			
Mechanized	Machine	45	420158	420168	220977 or 420156[1]	220997	220971
		65	420169	420168			
		125/105	220975	220976			
FineCut®	Hand Machine	45	420151	420152	220977 or 420156[1]	420159 220997	220971
Max removal gouging	Hand/Machine	30–125	420001	420112	220977	220997	220971
Max control gouging	Hand/Machine	30–125	420001	420519	220977	220997	220971

[1] Ohmic retaining cap

Recommended Hypertherm genuine accessories

Hyamp™ deluxe circle cutting guide

Quick and easy setup for accurate circles up to 28" diameter. For use with the Powermax125®. Made in USA

017053   Hyamp deluxe kit

Air filtration kit

A ready-to-install kit with a 1-micron filter and an auto drain moisture separator protects against contaminated air. Made in USA

228890   Filter plus cover for Powermax105/125
011092   Replacement filter element for Eliminizer
101215   Cover only for Powermax105/125

Leather torch sheathing

Available in 25' sections, this option provides additional protection for torch leads against burn-through and abrasion.

024877   Black leather with Hypertherm logos

System dust covers

Made from a flame-retardant vinyl, a dust cover will protect your Powermax system for years. Made in USA

127360   Cover, Powermax125

Wheel/gantry kits

Complete, pre-assembled kits for added mobility or mounting on a cutting table gantry.

229467   Powermax105/125 wheel kit
229570   Powermax105/125 gantry kit

Hyamp™ torch adapter

The Hyamp torch adapter kit makes the 1-3/4" machine torches (on the Powermax125 and MAXPRO200® systems) compatible with track burners, pipe cutters, cutting tables, and legacy equipment that accept a 1-3/8" barrel torch.

428495   Hyamp torch adapter

Engineered and assembled in the USA

ISO 9001:2008

Hypertherm®
SHAPING POSSIBILITY™