

Hypertherm®

Powermax85®

Professional-grade plasma metal cutting and gouging system for handheld cutting 25 mm and mechanized piercing 20 mm.



Capacity	Thickness	Cut speed
	Cutting	
Recommended	25 mm	500 mm/min
	32 mm	250 mm/min
Severance (hand cutting)	38 mm	125 mm/min
Pierce*	20 mm	

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

Capacity	Metal removal rate	Groove profile
	Gouging	
Typical gouge	8,8 kg per hour	5,8 mm D x 7,1 mm W

Maximum productivity

- Finish jobs faster with cut speeds two and a half times greater than oxyfuel on 12 mm mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.

Easy-to-use for cutting and gouging

- No need to change the air pressure. Smart Sense™ technology ensures that it is always correctly set.
- Drag cut at full output with a patented shield that reduces dross buildup for smoother cutting.
- Tackle different jobs with multiple, easy-to-use torch styles.

Low operating costs

- Reduce costs with long consumable life and more uptime.
- High power efficiency lowers energy consumption.

Built and tested to withstand the harshest conditions

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

Duramax standard torch styles

(for more torch options, see www.hypertherm.com)



75° hand torch



15° hand torch

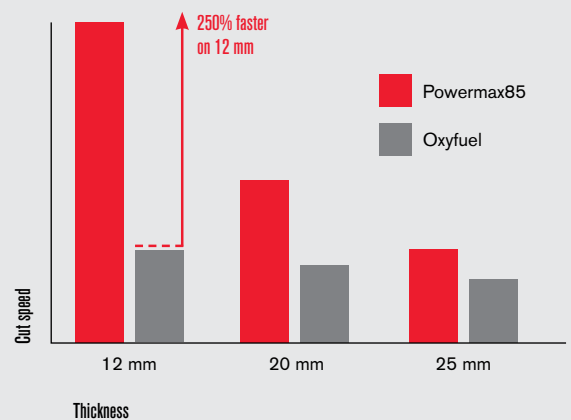


180° mini machine torch



180° full-length machine torch

Relative cut performance on mild steel



Specifications

Input voltages	400 V, 3-PH, 50/60 Hz
Input current @ 12,2 kW	380/400 V, 3-PH, 20,5/19,5 A
Output current	25–85 A
Rated output voltage	143 VDC
Duty cycle @ 40° C	60% @ 85 A, 380/400 V, 3-PH 100% @ 66 A, 380/400 V, 3-PH
Open circuit voltage (OCV)	270 VDC
Dimensions with handles	500 mm D; 234 mm W; 455 mm
Weight w/7,6 m torch	28 kg
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 189 l/min @ 5,6 bar Gouging: 212 l/min @ 4,8 bar
Input power cable length	3 m
Power supply type	Inverter – IGBT
Engine drive requirement	20 kW for full 85 A output
Certifications	CE, C-Tick, CU/GOST, Ukr, and Serbian – for use in Europe, Australia, Belarus, Kazakhstan, Russia, Serbia, Ukraine, and other countries where accepted.
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.

	75° hand torch		75° and 15° hand torch		180° full-length machine torch						180° full-length machine torch and 75° hand torch	
	7,6 m	15,2 m	7,6 m	15,2 m	7,6 m		15,2 m				7,6 m	
Power supplies		With Eliminator filter and cover			without remote pendant	with remote pendant	without remote pendant	with I/O cables (no pendant)	with remote pendant	without remote pendant	with I/O cables (no pendant)	with remote pendant
Standard power supply	087117	087120	087118									
Power supply with CPC port and voltage divider	087122		087123	087146	087147	087124	087131		087125			087136
Power supply with CPC port, voltage divider, and serial port								087139			087141	



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

Power supply options

	Standard power supply	Power supply with CPC port and voltage divider	Power supply with CPC port, voltage divider, and serial port
400 V CE	087068	087106	087107

Starter kit consumable options

	Handheld	Mechanized	Mechanized with ohmic retaining cap
Kit	228966	228967	228968

Torch options

Cable length	Hand torches		Machine torches		Robotic torches		
	75°	15°	180°	Mini 180°	45°	90°	180°
4,5 m			059476	059481			
7,6 m	059473	059470	059477	059482	059464	059465	059466
10,7 m			059478	059483			
15,2 m	059474	059471	059479	059484			
22,8 m	059475	059472	059480				

Cable options

Cable length	Work cables			Control cables					
	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'	223035	223203	223209	128650	228350	023206	223048	223236	223239
50'	223034	223204	223210	128651	228351	023279	123896	223237	223240
75'	223033	223205	223211	128652					

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	45	220941	220817	220854	220842	220857
		65	220819				
		85	220816				
Mechanized	Machine	45	220941	220817 or 2209551	220854 or 2209532	220842	220857
		65	220819				
		85	220816				
FineCut®	Hand	45	220930	220931	220854 or 2209532	220842	220947
	Machine			220948			220857
Gouging	Hand	25-85	220797	220798	220854	220842	220857
	Machine						

¹ Deflector for unshielded cutting

² Ohmic retaining cap

Recommended Hypertherm genuine accessories

- Hypertherm plasma cutting gloves, 127169
- Powermax65/85 wheel kit, 229370
- System storage dust cover, 127301
- Eliminer filter and cover, 228570
- Replacement filter element for Eliminer, 011092
- Torch lead cover, black, 024877



Wheel kit



Leather torch cover



Gloves



Eliminer filter and cover

ISO 9001:2008

Environmental stewardship is a core value of Hypertherm. Our Powermax products are engineered to meet and exceed global environmental regulations including the RoHS directive.



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