Hypertherm®

Powermax65®

Professional-grade plasma metal cutting and gouging system for handheld cutting 3/4" and mechanized piercing 5/8".

Capacity	Thickness	Cut speed
	Cutting	
Recommended	3/4"	20 ipm
	1"	10 ipm
Severance (hand cutting)	1-1/4"	5 ipm
Pierce*	5/8"	

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

Capacity	Metal removal rate	Groove profile
	Gouging	
Typical gouge	10.7 lbs per hour	.14" D x .26" W

Maximum productivity

- Finish jobs faster with cut speeds one and a half times greater than oxyfuel on 1/2" 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.

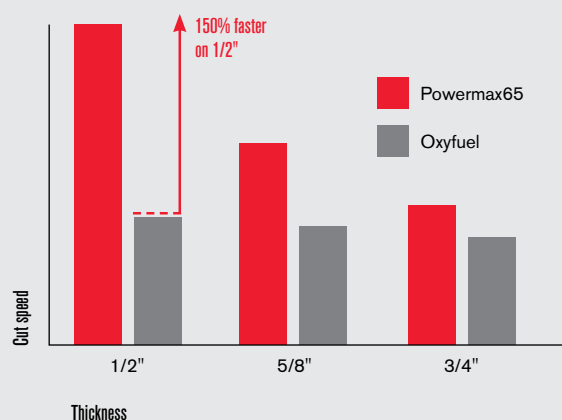## Built and tested to withstand the harshest conditions

- 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

150% faster on 1/2"

Powermax65
Oxyfuel

Cut speed

1/2"　5/8"　3/4"

Thickness

Specifications

Input voltages	200–480 V, 1-PH, 50/60 Hz 200–600 V, 3-PH, 50/60 Hz
Kilowatt output	9 kW
Input current @ 9 kW	200/208/240/480 V, 1-PH 52/50/44/22 A 200/208/240/480/600 V, 3-PH 32/31/27/13/13 A
Output current	20–65 A
Rated output voltage	139 VDC
Duty cycle @ 104° F (40° C)	50% @ 65 A, 230–600 V, 1/3-PH 40% @ 65 A, 200–208 V, 1/3-PH 100% @ 46 A, 230–600 V, 1/3-PH
Open circuit voltage (OCV)	295 VDC
Dimensions with handles	19.7" D; 9.2" W; 17.9" H
Weight w/25' torch	64 lbs
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 400 scfh, 6.7 scfm @ 85 psi Gouging: 450 scfh, 7.5 scfm @ 70 psi
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	15 kW for full 65 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	75° hand torch		75° and 15° hand torch		180° full-length machine torch						180° full-length machine torch and 75° hand torch
	25'	50'	25'	50'	25'			50'			25'
		With Eliminizer filter and cover		without remote pendant		with remote pendant	without remote pendant or cables	with I/O cables (no pendant)	with remote pendant	without remote pendant	with I/O cables (no pendant)	with remote pendant
Standard power supply	083270	083273	083271									
Power supply with CPC port and voltage divider	083275		083276	083307	083308	083277	083294		083278	083302		083300
Power supply with CPC port, voltage divider, and serial port							083328	083303			083305	

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
200–600 V CSA	083234	083266	083267

Starter kit consumable options

	Handheld	Mechanized	Mechanized with ohmic retaining cap
Kit	228963	228964	228965

Torch options

	Hand torches		Machine torches		Robotic torches		
Cable length	75°	15°	180°	Mini 180°	45°	90°	180°
15'			059476	059481			
25'	059473	059470	059477	059482	059464	059465	059466
35'			059478	059483			
50'	059474	059471	059479	059484	059585	059586	059587
75'	059475	059472	059480				

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'	223125	223194	223200	128650	228350	023206	223048	223236	223239
50'	223126	223195	223201	128651	228351	023279	123896	223237	223240
75'	223127	223196	223202	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 / 65	220941 / 220819	220818	220854	220842	220857
Mechanized	Machine	45 / 65	220941 / 220819	220817 or 220955[1]	220854 or 220953[2]	220842	220857
FineCut®	Hand / Machine	45	220930	220931 / 220948	220854 or 220953[2]	220842	220947
Max control gouging	Hand/Machine	20–65	220797	420480	220854	220842	220857
Max removal gouging	Hand/Machine	20–65	220797	220798	220854	220842	220857

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap

Recommended Hypertherm genuine accessories

Hyamp™ helmet

Premium auto-dim shade 8–12 with large 7.92 square inch viewing area for cutting, welding and gouging. Includes clear safety shields, pouch and sticker sheet. ANSI Z87.1, CSA Z94.3, CE

017031

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

Wheel/gantry kits

Complete, pre-assembled kits for added mobility.

229370   Powermax65/85 wheel kit
229569   Powermax65/85 gantry 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

228570   Filter plus cover for Powermax65/85
011092   Replacement filter element for Eliminizer
228624   Cover only for Powermax65/85

System dust covers

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

127301   Cover, Powermax65

Hyamp cutting and gouging gloves

Insulated for heavy duty applications. Fire resistant goatskin leather and suede. Padded areas for extra heat and abrasion protection. Made in USA

017025   Medium
017026   Large
017027   X-Large
017028   2X-Large

Engineered and assembled in the USA

ISO 9001:2008

Hypertherm®
SHAPING POSSIBILITY™

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)
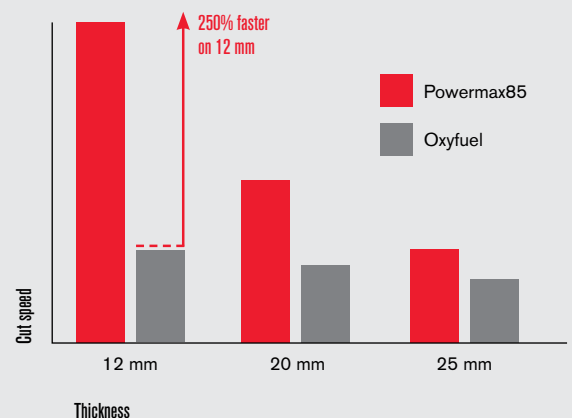
75° hand torch

15° hand torch

180° mini machine torch

180° full-length machine torch

Relative cut performance on mild steel

250% faster on 12 mm

■ Powermax85
■ Oxyfuel

Cut speed

12 mm   20 mm   25 mm

Thickness

Specifications

Input voltages	400 V, 3-PH, 50/60 Hz
Kilowatt output	12,2 kw
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.

Power supplies	75° hand torch 7,6 m	75° hand torch 15,2 m With Eliminizer filter and cover	75° hand torch 15,2 m	75° and 15° hand torch 7,6 m without remote pendant	75° and 15° hand torch 15,2 m	180° full-length machine torch 7,6 m with remote pendant	180° full-length machine torch 7,6 m without remote pendant	180° full-length machine torch 7,6 m with I/O cables (no pendant)	180° full-length machine torch 15,2 m with remote pendant	180° full-length machine torch 15,2 m without remote pendant	180° full-length machine torch 15,2 m with I/O cables (no pendant)	180° full-length machine torch and 75° hand torch 7,6 m 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

	Hand torches		Machine torches		Robotic torches		
Cable length	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

	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'	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

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Consumable type	Torch type	Amperage	Nozzle	Shield/Deflector	Retaining cap	Electrode	Swirl ring
Drag-cutting	Hand	45	220941	220818	220854	220842	220857
		65	220819				
		85	220816				
Mechanized	Machine	45	220941	220817 or 220955[1]	220854 or 220953[2]	220842	220857
		65	220819				
		85	220816				
FineCut®	Hand	45	220930	220931	220854 or 220953[2]	220842	220947
	Machine			220948			220857
Gouging	Hand	25–85	220797	220798	220854	220842	220857
	Machine						

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap

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017031

Air filtration kit

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

228570 Filter plus cover for Powermax65/85
011092 Replacement filter element for Eliminizer
228624 Cover only for Powermax65/85

Leather torch sheathing

Available in 7,6 m sections, this option provides additional protection for torch leads against burn-through and abrasion.

024548 Brown leather
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.

127301 Cover, Powermax85

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229370 Powermax65/85 wheel kit

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017025 Medium
017026 Large
017027 X-Large
017028 2X-Large

Hypertherm®

Cut with confidence®