Hypertherm®

Powermax® family catalog

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50 years of Shaping Possibility®

With the right tools and a relentless focus on innovation, partnership, and community, we believe anything is possible.

Fifty years ago, in a small two car garage, Hypertherm® began our journey with simple, powerful ideas about business and an invention that shaped the future of industrial cutting. The same ideals that fueled our inception all those years ago are still what drive us today: A passion for challenging what is achievable with the products we create, the culture we foster, and the experience we deliver to our customers. As we look to the horizon and the next 50 years, we are proud that our people, partners, and innovations will shape the future with solutions that make anything possible for industries around the world.

At Hypertherm, we give shape to our customers' vision with the world's leading industrial cutting solutions. Every day we help individuals and companies around the world envision better, smarter and more efficient ways to produce the products that shape our world. So whether you're cutting precision parts in North America, constructing a pipeline in Norway, fabricating agricultural machinery in Brazil, cutting stone in Italy, gouging out welds in the mines of South Africa, or building a skyscraper in China, you can count on Hypertherm to help you not just cut parts but achieve your vision.

100% employee ownership matters

At Hypertherm, we are not just employees: we are all owners. Ownership is a powerful motivator that ensures our customers are our top priority. As owners, we make sure every product is built to the highest quality and that our service is second to none. And we build long-term relationships that deliver value for us, our partners and our customers.

Worldwide presence and strength

Hypertherm is a key partner for your fabrication needs and has built a global organization focused on providing high-performance cutting solutions.

Key elements of the Hypertherm formula include:

- Dedicated Associates focused on customer-centered product design and support
- Local sales and service
- Broad application experience and proven results
- Sustainable and ethical business practices benefit our customers and communities

Understanding plasma technology

Powermax systems cut metal quickly, and cleanly

Plasma, and its intense heat (up to 39,000° F or 22,000° C), is created when gas is ionized by electrical energy. Powermax® systems use plasma to melt metal, and compressed air, nitrogen or F5 gas to blow the molten metal away, leaving a good quality cut edge ready to weld in most cases. Powermax systems are also effective for gouging metal.

Cut or gouge any electrically conductive metal

Whether in a shop, factory, at home or in the field, Powermax systems cut and gouge all metal types and forms. Most models are available with a handheld or machine torch to fit the application.

Operating a plasma system requires:

- AC power source (fixed or generator)
- Compressed air – shop air, portable air compressor or bottled air. Nitrogen and F5 gas are often used for stainless steel
- Safety equipment, including shaded glasses or face shield, gloves, protective clothing and proper ventilation

For more information, refer to product brochures or visit www.hypertherm.com/powermax/

Why choose Powermax over oxyfuel

Safer

Cutting with a plasma system needs no flammable gasses.

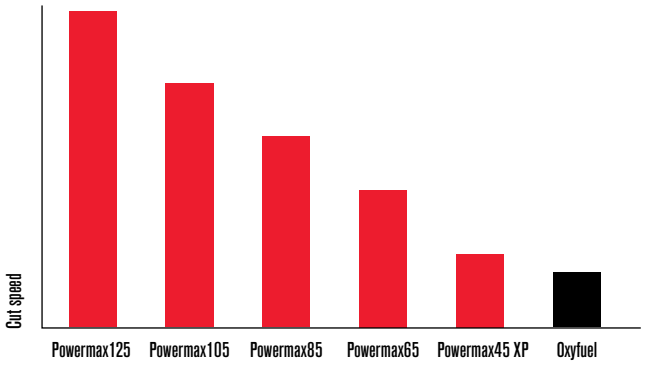
More productive

Much faster cut speeds up to 1-1/2" thick; no preheating needed; a cleaner edge with smaller heat-affected zone (HAZ) requires less grinding of the cut edge.

More versatile

Cuts and gouges all electrically conductive metal including stainless steel and aluminum; easily used with templates, cuts stacked, painted, or rusted metal.

Cut speed comparison on 1/2" mild steel



Why choose Powermax over other cutting or gouging systems

More productive

Our consumable technology delivers faster speeds and better cut quality to help you do more in less time.

Easier to use

High portability, simple controls and a stable plasma arc make Powermax® systems easy to operate for beginners and experts.

More versatile

With the widest array of torches and speciality consumables, Powermax systems can be configured to address a wide range of applications from extended reach cutting to precision gouging and more.

Lower operating cost

Faster speeds and longer consumable life lower your cost of cutting and gouging metal.

More reliable

Smart design and intense testing during product development and manufacturing keep you up and running.

Confidence

Hypertherm's focus on plasma by our associate-owners, and the proven performance of our global installed base of systems give you confidence that you are buying the best.

To choose the Powermax system that will best suit your long term needs, please consider the following questions

What thickness of metal will you be cutting?

Powermax plasma can cut from sheet metal to 2-1/4". Choose the Powermax system with the recommended capacity for the thickness of metal you expect to cut 80% of the time or more.

Will the cutting or gouging be done by a handheld torch or with an automated machine?

For automated cutting, select a machine-torch compatible Powermax system with interface options for automation equipment including CNC tables, robots, and track cutters.

What electrical service do you use?

Knowing the incoming line voltage, phase and breaker size where the system will be used ensures your electrical service can support the Powermax system you choose.

Will the plasma system be powered by an engine-drive generator?

Each Powermax system requires a minimum kilowatt output to deliver full performance. For specific generator requirements refer to the Powermax specification tables within.

What is your compressed gas source?

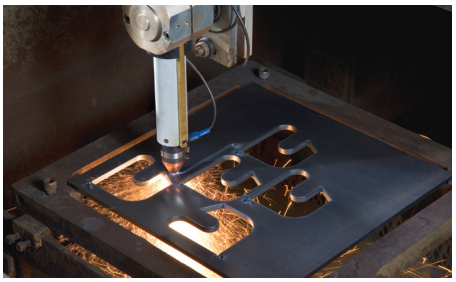
Powermax systems require compressed air, nitrogen, or F5 gas for operation. The gas must be dry and free of contaminants. An optional filter is available to ensure clean and dry gas. For specific gas flow rate and pressure requirements refer to the Powermax specification tables within.

Genuine Hypertherm consumables

Hypertherm designs and manufactures an extensive array of innovative consumable technologies for Powermax® systems. This versatility of application capabilities is what distinguishes Powermax from other plasma systems.

Drag cutting

For consistent torch motion and improved cut edge quality

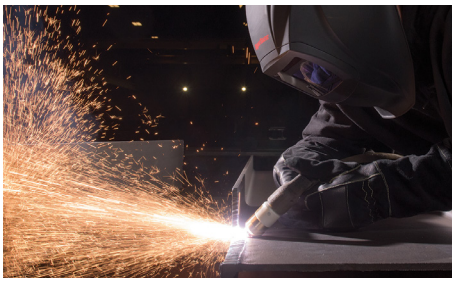


Mechanized cutting

For a variety of automated cutting applications with machine torches

Gouging

Max removal, max control or precision gouging options to achieve the optimal gouge profile



FlushCut™

FlushCut consumables feature an angled nozzle bore design for cutting close to base material

FineCut®

For intricate and fine feature cutting with minimal dross

Marking

Marking consumables for the Powermax45 XP

HyAccess™

For cutting or gouging in hard to reach or confined spaces

To determine which Powermax systems are compatible with the specific applications being referred to above see the table on page 8.

Powermax®

Product line overview

		Powermax30 XP	Powermax30 AIR	Powermax45 XP	Powermax65	Powermax85	Powermax105	Powermax125
Cut capacity	**Recommended**	3/8"	5/16"	5/8"	3/4"	1"	1-1/4"	1-1/2"
	Severance	5/8"	5/8"	1-1/8"	1-1/4"	1-1/2"	2"	2-1/4"
	Output range	15–30	15–30	10–45	20–65	25–85	30–105	30–125
	Input phase	Single	Single	Single or three	Single and three	Single and three	Three	Three
Application capabilities	**Mechanized cutting**			●	●	●	●	●
	Drag cutting	●	●	●	●	●	●	●
	FineCut®	●		●	●	●	●	●
	Marking			●				
	Precision gouging			●				
	Max control gouging			●	●	●	●	●
	Max removal gouging				●	●	●	●
	HyAccess™	●		●	●	●	●	
	FlushCut™			●	●*	●*	●*	●

*Using the 45 A FlushCut consumables above 45 amps on the Powermax65/85/105 will cause premature consumable damage.

Powermax30® XP

Professional-grade plasma system for handheld cutting 3/8" metal.

Easy-to-use, two-in-one design

- High-power cutting on thick metal plus FineCut® consumables for detailed, thin metal cutting.
- Plug into any 120 or 240 V power with Auto-Voltage™ technology and included plug adapters.

Finish jobs faster

- 50% increase in cutting power* for fast cut speeds.
- Less edge preparation – patented consumables designs provide superior cut quality.
- Twice the consumable life* and 70% more efficient on average for lower cost of cutting.

Rugged and reliable

- New Duramax® LT torch designed to withstand impact and heat.
- Hypertherm Certified™ reliability ensures performance in the most demanding environments.
- Durable carrying case protects the system and gear.

Duramax LT hand torch

Capacity	Thickness	Cut speed
	Cutting	
Recommended	3/8"	20 ipm
		10 ipm
Severance	5/8"	5 ipm

Specifications

Input voltages	120–240 V, 1-PH, 50/60 Hz
Input current @ 3.8 kW	120–240 V, 1-PH, 25.5–18.8 A
Output current	15–30 A
Rated output voltage	125 VDC
Duty cycle @ 104° F	35%, 240 V 20%, 120 V
Open circuit voltage (OCV)	256 VDC
Dimensions with handles	14.0" D; 5.5" W; 11.5" H
Weight with 15' torch	21.4 lbs.
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	4 scfm @ 80 psi
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	5.5 kW for full 30 A output
Certifications	CSA-certified for use in the Americas and Asia, except China.
Warranty	Power supply: 3-year Torch: 1-year

Cutting with 120 V input power

Use FineCut nozzle and deflector for cutting at 120 V input power. When operating at the maximum recommended output of 25 A, the cut capacities are:

- 1/4" at 19 ipm
- 3/8" at 8 ipm
- 1/2" at 3 ipm

*compared to Powermax30

Hand systems	
088080	Powermax30® XP system, 120–240 V 1-PH, CSA, plus 75° handheld torch w/consumables, 15' lead w/carry case
088081	Powermax30 XP system, 120–240 V 1-PH, CSA, plus 75° handheld torch w/consumables, 15' lead
088079*	Powermax30 XP system, 120–240 V 1-PH, CSA, plus 75° torch w/consumables, 15' lead, “American Built” edition w/case

*“American Built” edition comes with special graphics, carry case, shade 5 glasses and cutting gloves.

Torch assembly	
428174	Duramax® LT Hand Torch Assembly with 15' leads

Torch consumables	
420117**	Nozzle, Duramax LT, 15–30 A, FineCut®
420118**	Nozzle, Duramax LT, 15–30 A, standard cutting
420144**	Nozzle, HyAccess™, 15–45 A, cutting
420147**	Nozzle, HyAccess, 15–45 A, gouging
420120**	Electrode, Duramax LT, 15–30 A
420137**	Electrode, HyAccess, 15–45 A
420211	Swirl ring, Duramax LT, 15–30 A
220670	Swirl ring, T45v/m, 15–45 A
420114	Retaining cap, Duramax LT, 15–30 A
420148	Retaining cap, HyAccess, 15–45 A
420116	Shield, Duramax LT, 15–30 A
420115	Deflector, Duramax LT, 15–30 A, FineCut

**Minimum order quantity of 5 per pack

Consumable kits and packs	
851479	Consumable kit, Powermax30 XP Essential handheld, 30 A, cutting
428244	Dual pack, electrode and nozzle, Duramax LT, 15–30 A, FineCut, qty. 2 each of 420120 and 420117
428243	Dual pack, electrode and nozzle, Duramax LT, 15–30 A, standard cutting, qty. 2 each of 420118 and 420120
428337	Consumable kit, HyAccess, 15–45 A, cutting and gouging
428443	Starter pack, HyAccess, 15–45 A, Cutting, qty. 1 each 420148, 420144 and 420137
428444	Starter pack, HyAccess, 15–45 A, gouging, qty. 1 each 420148, 420147 and 420137

Optional system accessories	
127410	System carry case, Powermax30 XP or Powermax30
017060	Rolling tool bag, 19.5" x 17.5" x 12.5"
127144	System storage dust cover, Powermax30 XP or Powermax30
229132	Extension power cord: 120 V/15 A Adapter
229133	Extension power cord: 240 V/20 A Adapter
229134	Extension power cord: 120 V/20 A Adapter
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration Kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
024877	Leather torch lead cover with hook and loop closure, black, 25' section
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder

Torch consumable stack-up

Consumable type	Torch type	Amperage	Shield/Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Standard	Hand	30	420116	420114	420118	420120	420211
FineCut®	Hand	30	420115	420114	420117	420120	420211
HyAccess™	Hand	30		420148	420144 (cutting) 420147 (gouging)	420137	220670

Powermax30® AIR

Professional-grade plasma system with internal air compressor for high portability and easy metal cutting.

Easy-to-setup and operate

- Operate it anywhere with the internal air compressor.
- Plug into any 120 or 240 V power with Auto-Voltage™ technology and included plug adapters.
- Highly portable. The smallest, lightest weight system in its class.

Finish jobs faster

- Do more in less time. Fast cutting speeds and superior cut quality result in less secondary operations.
- Quickly cut metal grate or rusted metal without retriggering with the continuous pilot arc feature.
- One tool to cut a variety of metal types and thicknesses.

Rugged and reliable

- New AIR T30 torch is rugged and designed to withstand the toughest environments.
- Robust internal air compressor eliminates the costs associated with an external compressor.
- Hypertherm Certified™ reliability ensures performance in the most demanding environments.

AIR T30 hand torch

Capacity	Thickness	Cut speed
	Cutting	
Recommended	5/16"	20 ipm
	3/8"	10 ipm
Severance	5/8"	5 ipm

Specifications

Input voltages	120–240 V, 1-PH, 50/60 Hz
Input current @ 2.5 kW	120–240 V, 1-PH, 29–15 A
Output current	15–30 A
Rated output voltage	83 VDC
Duty cycle @ 104° F	35%, 240 V 20%, 120 V
Open circuit voltage (OCV)	256 VDC
Dimensions with handles	16.5" D; 7.7" W; 13.1" H
Weight with 15' torch	29.8 lbs.
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	5.5 kW for full 30 A output
Certifications	CSA-certified for use in the Americas and Asia, except China
Warranty	Power supply: 3-year Torch: 1-year

Hand systems	
088097	Powermax30® AIR system, 120–240 V 1-PH, CSA, plus 75° handheld torch w/consumables, 15' lead
088096	Powermax30 AIR system, 120–240 V 1-PH, CSA, plus 75° handheld torch w/consumables, 15' lead, “American Built” ed

Torch assembly	
428393	Air T30 hand torch assembly with 15' lead

Torch consumables	
420132*	Electrode, AIR T30, 15–30 A
420134*	Nozzle, AIR T30, 15–30 A
420133	Swirl ring, AIR T30, 15–30 A
420135	Retaining cap, AIR T30, 15–30 A
420399	Deflector, AIR T30, 15–30 A

*Minimum order quantity of 5 per pack

Consumable kits and packs	
428350	Dual pack, electrode and nozzle, T30 AIR, 15–30 A, cutting
851462	Consumable kit, Powermax30 AIR Essential handheld, 30 A, cutting

Optional system accessories	
127469	System storage dust cover, Powermax30 AIR
017060	Rolling tool bag, 19.5" x 17.5" x 12.5"
229132	Extension power cord: 120 V/15 A adapter
229133	Extension power cord: 240 V/20 A adapter
229134	Extension power cord: 120 V/20 A adapter
024877	Leather torch lead cover with hook and loop closure, black, 25' section
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder

Torch consumable stack-up

Consumable type	Torch type	Amperage	Shield/Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Standard	Hand	30	420399	420135	420134	420132	420133

Powermax45® XP

Professional-grade plasma system for cutting 5/8" thick metal, gouging, and marking.

Easy-to-use with versatile design

- Small size and light weight provides exceptional portability for a 5/8" rated cutting system.
- Handheld and mechanized usage with CNC interface and FastConnect™ torch connection.
- Patented drag-cutting technology makes it easy to use – even for first-time operators.
- Tackle different jobs with multiple, easy-to-use torch and consumable styles.
- No need to change the air pressure. Smart Sense™ technology ensures that it is always correctly set.
- Mark, score and make precision gouges with new low amp process.

Maximum productivity

- Finish jobs faster with cut speeds one and a half times greater than oxyfuel on 1/4" mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.
- Fast change out of consumables using the new torch disable switch feature.

Rugged and reliable

- Duramax® Lock torches are designed for high-impact and heat resistance.
- SpringStart™ technology ensures consistent starting and a more reliable torch.
- Hypertherm Certified™ reliability ensures performance in the most demanding environment.

Torches

- To see details on all torches compatible with this system, please refer to the torch applications chart on page 34.

Capacity	Thickness	Cut speed
	Cutting	
Recommended	5/8"	20 ipm
	7/8"	10 ipm
Severance (hand cutting)	1-1/8"	5 ipm
Pierce*	1/2"	

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

Capacity	Metal removal rate	Groove profile*
	Gouging	
Typical gouge	7.5 lbs. per hour	.12" D x .26" W

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

Specifications

Input voltages (± 10%)	200–240 V, 1-PH, 50–60 Hz 480 V, 3-PH, 50–60 Hz
Input current @ 6.5 kW	200–240 V, 1-PH, 39/32 A 480 V, 3-PH, 9.4 A
Output current	10–45 A
Rated output voltage	145 VDC
Duty cycle @ 104° F	50% @ 45 A, 200–240 V, 1-PH 60% @ 41 A, 200–240 V, 1-PH 100% @ 32 A, 200–240 V, 1-PH 50% @ 45 A, 480 V, 3-PH 60% @ 41 A, 480 V, 3-PH 100% @ 32 A, 480 V, 3-PH
Open circuit voltage (OCV)	275 VDC
Dimensions with handles	17.4" D; 6.8" W; 14.1" H
Weight with 20' torch	31 lbs.
Gas supply	Cutting: air (clean, dry and oil-free), nitrogen, F5 Gouging: air (clean, dry and oil-free), nitrogen, F5 Marking: air (clean, dry and oil-free), argon
Recommended gas inlet flow rate/pressure	400 scfh @ 90 psi
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	10 kW for full 45 A output
Electrical efficiency	88%
Recyclability	100%
Certifications	CSA-certified for use in the Americas and Asia, except China
Warranty	Power supply: 3-year Torch: 1-year

Hand systems	
088124	Powermax45® XP system, 230 V 1-PH, CSA, plus CPC port, 75° and 15° handheld torch w/consumables, 20' leads
088113	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 20' lead
088115	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 50' lead
088112	Powermax45 XP system, 230 V 1-PH, CSA, 75° handheld torch w/ consumables, 20' lead
088114	Powermax45 XP system, 230 V 1-PH, CSA, 75° handheld torch w/ consumables, 50' lead
088125*	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 20' lead, English training kit
088127	Powermax45 XP system, 480 V 3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 20' lead
088129	Powermax45 XP system, 480 V 3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 50' lead
088126	Powermax45 XP system, 480 V 3-PH, CSA, 75° handheld torch w/consumables, 20' lead
088128	Powermax45 XP system, 480 V 3-PH, CSA, 75° handheld torch w/consumables, 50' lead

*for qualified institutions only – pre-approval required to order

Machine systems	
088123	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 75° and 180° torches w/consumables, 20" and 25" leads, remote
088116	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
088117	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 180° machine torch w/consumables, 35' lead, remote
088118	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
088121	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead
088122	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead
088119	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 25' lead
088120	Powermax45 XP system, 230 V 1-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 50' lead

Powermax45 XP power supplies (power supplies only, no torches)	
088092	Powermax45 XP power supply, 200–240 V 1-PH, CSA
088104	Powermax45 XP power supply, 200–240 V 1-PH, CSA plus CPC port
088105	Powermax45 XP power supply, 200–240 V 1-PH, CSA, plus CPC and Serial ports
088095	Powermax45 XP power supply, 480 V 3-PH, CSA
088110	Powermax45 XP power supply, 480 V 3-PH, CSA, plus CPC port
088111	Powermax45 XP power supply, 480 V 3-PH, CSA, plus CPC and Serial ports
088173	Powermax45 XP power supply, 480 V 3-PH, CSA, no power cord

Duramax Lock torch assemblies	
Below are torches that were designed for use with the Powermax45 XP power supplies, however additional torch models are compatible. Refer to page 34 for more information.	
088164	Duramax® Lock handheld torch, 75°, 20' lead
088165	Duramax Lock handheld torch, 75°, 50' lead
088162	Duramax Lock handheld torch, 15°, 20' lead
088163	Duramax Lock handheld torch, 15°, 50' lead
088167	Duramax Lock machine torch, 180°, 25' lead
088168	Duramax Lock machine torch, 180°, 35' lead
088169	Duramax Lock machine torch, 180°, 50' lead

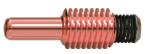
Powermax45 XP work leads	
223595	45 A work lead with hand clamp, 25'
223596	45 A work lead with hand clamp, 50'
223127	65 A work lead with hand clamp, 75'

Automated control accessories	
128650	Remote on/off switch for machine torch, 25'
128651	Remote on/off switch for machine torch, 50'
128652	Remote on/off switch for machine torch, 75'
428755	Remote on/off switch for machine torch, 150'
428653	Upgrade kit: CPC port with selectable voltage ratio
428654	Upgrade kit: Serial interface port (RS-485)
023206	Machine interface cable without voltage divider signal, spade connectors, 25'
023279	Machine interface cable without voltage divider signal, spade connectors, 50'
228350	Machine interface cable with voltage divider signal, spade connectors, 25'
228351	Machine interface cable with voltage divider signal, spade connectors, 50'
223048	Machine interface cable with voltage divider signal, D-sub connector, 25'
123896	Machine interface cable with voltage divider signal, D-sub connector, 50'
223236	Serial interface RS-485 to unterminated, 25'
223237	Serial interface RS-485 to unterminated, 50'
223239	Serial interface RS-485 to 9-pin D-sub connector, 25'
223240	Serial interface RS-485 to 9-pin D-sub connector, 50'

Torch consumables	
220842	Electrode, Duramax® and Duramax Lock, 10–105 A
220777	Electrode, 15–105 A, CopperPlus™
420408	Electrode, Duramax and Duramax Lock, 30–65 A, HyAccess™
420635	Electrode, Duramax and Duramax Lock, 30–45 A, FlushCut™
220941	Nozzle, Duramax and Duramax Lock, 45 A
220930	Nozzle, Duramax and Duramax Lock, 30–45 A, FineCut®
420419	Nozzle, Duramax Lock, 26–45 A, max control gouging
420415	Nozzle, Duramax Lock, 10–25 A, precision gouging and marking
420410	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess cutting
420412	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess gouging
420633	Nozzle shield, Duramax and Duramax Lock, 30–45 A, FlushCut
220857	Swirl ring, Duramax and Duramax Lock, 10–85 A
220947	Swirl ring, Duramax and Duramax Lock, 30–45 A, FineCut
420634	Swirl ring, Duramax and Duramax Lock, 30–45 A, FlushCut
420480	Shield, Duramax and Duramax Lock, 26–105 A, max control gouging
420414	Shield, Duramax Lock, 10–25 A, precision gouging
420542	Shield, Duramax Lock, 10–25 A, marking
220818	Shield, Duramax and Duramax Lock, 15–85 A, drag cutting
220817	Shield, Duramax and Duramax Lock, 15–85 A, mechanized cutting
220948	Shield, Duramax, mechanized ohmic, 30–45 A, FineCut
220931	Shield, Duramax and Duramax Lock, 30–45 A, FineCut
220955	Deflector, Duramax and Duramax Lock, 15–105 A, mechanized cutting
220854	Retaining cap, Duramax and Duramax Lock, 10–105 A
220953	Retaining cap, mechanized ohmic, Duramax and Duramax Lock, 15–105 A
420413	Retaining cap, Duramax and Duramax Lock, 30–65 A, HyAccess
420536	Retaining cap, Duramax and Duramax Lock, 30–105 A, FlushCut
420540	Retaining ring, Duramax and Duramax Lock, 30–105 A, FlushCut

Consumable kits and packs	
851510	Consumable kit, Powermax45® XP Essential handheld, 45 A, cutting
851511	Consumable kit, Powermax45 XP Essential mechanized, 45 A, cutting
851512	Consumable kit, Powermax45 XP Essential mechanized ohmic, 45 A, cutting
428414	Consumable kit, Duramax® and Duramax Lock, 30–65 A, HyAccess™ cutting and gouging
428746	Consumable kit, Duramax and Duramax Lock, 30–45 A, FlushCut™
428445	Starter pack, Duramax, HyAccess, 30–65 A, cutting, qty. 1 each 420413, 420410 and 420408
428446	Starter pack, Duramax, HyAccess, 30–65 A, gouging, qty. 1 each 420413, 420412 and 420408
228767	Bulk pack, electrode, Duramax, 10–105 A, contains 220842, qty. 25
228934	Bulk pack, electrode, CopperPlus, 10–105 A, contains 220777, qty. 25
228761	Bulk pack, nozzle, Duramax FineCut, 30–45 A, contains 220930, qty. 25
228765	Bulk pack, nozzle, Duramax, 45 A, contains 220941, qty. 25
228764	Bulk pack, shield, Duramax drag cutting, 15–85 A, contains 220818, qty. 10
228763	Bulk pack, shield, Duramax mechanized, 15–85 A, contains 220817, qty. 10
428559	Consumable starter kit Powermax45 XP handheld (for à la carte system ordering)
428560	Consumable starter kit Powermax45 XP, mechanized (for à la carte system ordering)
428561	Consumable starter kit Powermax45 XP, mechanized with ohmic retaining cap (for à la carte system ordering)

Optional system accessories	
127219	System storage dust cover, Powermax45/45 XP
017060	Rolling tool bag, 19.5" x 17.5" x 12.5"
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
024877	Leather torch lead cover with hook and loop closure, black, 25' section
127217	Shoulder strap 1.5" x 50"
128658	Gouging heat shield for T45v handheld torches
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017059	Plasma bevel guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder



Torch consumable stack-up

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

Consumable type	Torch type	Amperage	Shield/ Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Drag-cutting	Hand	45	220818	220854	220941	220842	220857
Mechanized	Machine	45	220817 or 220955[1]	220854 or 220953[2]	220941	220842	220857
FineCut®	Hand Machine	45	220931 220955 or 220948[2]	220854 or 220953[2]	220930	220842	220947
Max control gouging	Hand/Machine	26–45	420480	220854	420419	220842	220857
Precision gouging	Hand/Machine	10–25	420414	220854	420415	220842	220857
Marking	Hand/Machine	10–25	420542	220854 or 220953[2]	420415	220842	220857
FlushCut™	Hand/Machine	30–45	420540[4]	420536	420633[3]	420635	420634
HyAccess™ cutting	Hand	15–45	N/A	420413	420410	420408	220857
HyAccess™ gouging	Hand	15–45	N/A	420413	420412	420408	220857

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap
[3] Nozzle/shield assembly
[4] Retaining ring

Powermax65®

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

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.

Torches

- To see details on all torches compatible with this system, please refer to the torch applications chart on page 34.

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

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

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	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 with 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 supply: 3-year Torch: 1-year

Hand systems	
083307	Powermax65® system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 25' leads
083308	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 50' leads
083275	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 25' lead
083276	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 50' lead
083270	Powermax65 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 25' lead
083271	Powermax65 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 50' lead
083273	Powermax65 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 25' lead, filter w/guard
083288*	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead, English training kit
083290*	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead, French training kit

*for qualified institutions only – pre-approval required to order

Machine systems	
083300	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 180° torches w/consumables, 25' lead, remote
083277	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
083278	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
083294	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead
083302	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead
083303	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 25' lead w/ring
083305	Powermax65 system, 200–600 V 1/3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 50' lead w/ring

Powermax65 power supplies	
083234	Powermax65 power supply, 200–600 V 1-PH, CSA
083266	Powermax65 power supply, 200–600 V 1-PH, CSA, plus CPC port
083267	Powermax65 power supply, 200–600 V 1-PH, CSA, plus CPC and serial ports

Duramax series torch assemblies	
Below are torches that were designed for use with the Powermax65 power supplies, however additional torch models are compatible. Refer to page 34 for more information.	
059473	Duramax® handheld torch, 75°, 25' lead
059474	Duramax handheld torch, 75°, 50' lead
059475	Duramax handheld torch, 75°, 75' lead
059470	Duramax handheld torch, 15°, 25' lead
059471	Duramax handheld torch, 15°, 50' lead
059472	Duramax handheld torch, 15°, 75' lead
059476	Duramax machine torch, 180°, 5' lead
059477	Duramax machine torch, 180°, 25' lead
059478	Duramax machine torch, 180°, 35' lead
059479	Duramax machine torch, 180°, 50' lead
059480	Duramax machine torch, 180°, 75' lead
059481	Duramax mini machine torch, 180°, 15' lead
059482	Duramax mini machine torch, 180°, 25' lead
059483	Duramax mini machine torch, 180°, 35' lead
059484	Duramax mini machine torch, 180°, 50' lead
059466	Duramax robotic torch, 180°, 25' lead
059587	Duramax robotic torch, 180°, 50' lead
059464	Duramax robotic torch, 45°, 25' lead
059585	Duramax robotic torch, 45°, 50' lead
059465	Duramax robotic torch, 90°, 25' lead
059586	Duramax robotic torch, 90°, 50' lead

Powermax65 work leads	
223125	65 A work lead with hand clamp, 25'
223126	65 A work lead with hand clamp, 50'
223127	65 A work lead with hand clamp, 75'
223194	65 A work lead with c-clamp, 25'
223195	65 A work lead with c-clamp, 50'
223196	65 A work lead with c-clamp, 75'
223200	65 A work lead with ring terminal, 25'
223201	65 A work lead with ring terminal, 50'
223202	65 A work lead with ring terminal, 75'

Automated control accessories	
128650	Remote on/off switch for machine torch, 25'
128651	Remote on/off switch for machine torch, 50'
128652	Remote on/off switch for machine torch, 75'
428755	Remote on/off switch for machine torch, 150'
228697	Upgrade kit: CPC port with selectable voltage ratio
228539	Upgrade kit: Serial interface port (RS-485)
023206	Machine interface cable without voltage divider signal, spade connectors, 25'
023279	Machine interface cable without voltage divider signal, spade connectors, 50'
228350	Machine interface cable with voltage divider signal, spade connectors, 25'
228351	Machine interface cable with voltage divider signal, spade connectors, 50'
223048	Machine interface cable with voltage divider signal, D-sub connector, 25'
123896	Machine interface cable with voltage divider signal, D-sub connector, 50'
223236	Serial interface RS-485 to unterminated, 25'
223237	Serial interface RS-485 to unterminated, 50'
223239	Serial interface RS-485 to 9-pin D-sub connector, 25'
223240	Serial interface RS-485 to 9-pin D-sub connector, 50'
228806	Clamp assembly for Duramax® robotic torches
229456	Robotic torch teach tip assembly for Duramax robotic torches

Torch consumables	
220842	Electrode, Duramax and Duramax Lock, 10–105 A
220777	Electrode, 15–105 A, CopperPlus™
420408	Electrode, Duramax and Duramax Lock, 30–65 A, HyAccess™
420635	Electrode, Duramax and Duramax Lock, 30–45 A, FlushCut™
220941	Nozzle, Duramax and Duramax Lock, 45 A
220819	Nozzle, Duramax, 65 A, cutting
220930	Nozzle, Duramax and Duramax Lock, 30–45 A, FineCut®
220797	Nozzle, Duramax, 45–85 A, gouging
420410	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess cutting
420412	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess gouging
420633	Nozzle shield, Duramax and Duramax Lock, 30–45 A, FlushCut
220857	Swirl ring, Duramax and Duramax Lock, 10–85 A
220947	Swirl ring, Duramax and Duramax Lock, 30–45 A, FineCut
420634	Swirl ring, Duramax and Duramax Lock,30–45 A, FlushCut
220798	Shield, Duramax, 45–105 A, max removal gouging
420480	Shield, Duramax and Duramax Lock, 26–105 A, max control gouging
220818	Shield, Duramax and Duramax Lock, 15–85 A, drag cutting
220817	Shield, Duramax and Duramax Lock, 15–85 A, mechanized cutting
220948	Shield, Duramax, mechanized ohmic, 30–45 A, FineCut
220955	Deflector, Duramax and Duramax Lock, 15–105 A, mechanized cutting
220931	Shield, Duramax and Duramax Lock, 30–45 A, FineCut
220854	Retaining cap, Duramax and Duramax Lock, 10–105 A
220953	Retaining cap, mechanized ohmic, Duramax and Duramax Lock, 15–105 A
420413	Retaining cap, Duramax and Duramax Lock, 30–65 A, HyAccess
420536	Retaining cap, Duramax and Duramax Lock, 30–105 A, FlushCut
420540	Retaining ring, Duramax and Duramax Lock, 30–105 A, FlushCut

Consumable kits and packs	
851465	Consumable kit, Powermax65® Essential handheld, 65 A, cutting
851466	Consumable kit, Powermax65 Essential mechanized, 65 A, cutting
851467	Consumable kit, Powermax65 Essential mechanized ohmic, 65 A, cutting
428414	Consumable kit, Duramax® and Duramax Lock, 30–65 A, HyAccess™ cutting and gouging
428746	Consumable kit, Duramax and Duramax Lock, 30–45 A, FlushCut™
428445	Starter pack, Duramax, HyAccess, 30–65 A, cutting, qty. 1 each 420413, 420410 and 420408
428446	Starter pack, Duramax, HyAccess, 30–65 A, gouging, qty. 1 each 420413, 420412 and 420408
228767	Bulk pack, electrode, Duramax, 10–105 A, contains 220842, qty. 25
228934	Bulk pack, electrode, CopperPlus, 10–105 A, contains 220777, qty. 25
228765	Bulk pack, nozzle, Duramax, 45 A, contains 220941, qty. 25
228759	Bulk pack, nozzle, Duramax, 65 A, contains 220819, qty. 25
228761	Bulk pack, nozzle, Duramax FineCut, 30–45 A, contains 220930, qty. 25
228762	Bulk pack, nozzle, Duramax gouging, 45–85 A, contains 220797, qty. 25
228764	Bulk pack, shield, Duramax drag cutting, 15–85 A, contains 220818, qty. 10
228763	Bulk pack, shield, Duramax mechanized, 15–85 A, contains 220817, qty. 10
228963	Consumable starter kit Powermax65 handheld (for à la carte system ordering)
228964	Consumable starter kit Powermax65, mechanized (for à la carte system ordering)
228965	Consumable starter kit Powermax65, mechanized with ohmic retaining cap (for à la carte system ordering)

Optional system accessories	
229370	Powermax65/85 wheel kit
229569	Powermax65/85 gantry mounting kit for cutting tables
127301	System storage dust cover, Powermax65/85
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
228570	Eliminizer air filtration kit with steel guard for Powermax65/85
228624	Powermax65/85 steel guard for eliminizer air filtration kit
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
127363	Torch carry bag, 23" x 11" x 11"
024877	Leather torch lead cover with hook and loop closure, black, 25' section
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder
428347	Gouging heat shield for Duramax series 75° hand torches, including Duramax retrofit torches.

Torch consumable stack-up

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

Consumable type	Torch type	Amperage	Shield/ Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Drag-cutting	Hand	45 65	220818	220854	220941 220819	220842	220857
Mechanized	Machine	45 65	220817 or 220955[1]	220854 or 220953[2]	220941 220819	220842	220857
FineCut®	Hand Machine	45	220931 220948	220854 or 220953[2]	220930	220842	220947
FlushCut	Hand/Machine	30–45[3]	420540[4]	420536	420633	420635	420634
Max control gouging	Hand/Machine	20–65	420480	220854	220797	220842	220857
Max removal gouging	Hand/Machine	20–65	220798	220854	220797	220842	220857

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap
[3] Using the 45 amp FlushCut consumables on the Powermax65 above 45 amps will cause premature consumable damage
[4] Retaining ring

Powermax85®

Professional-grade plasma metal cutting and gouging system for handheld cutting 1" and mechanized piercing 3/4".

Maximum productivity

- Finish jobs faster with cut speeds two 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.

Torches

- To see details on all torches compatible with this system, please refer to the torch applications chart on page 34.

Capacity	Thickness	Cut speed
	Cutting	
Recommended	1"	20 ipm
	1-1/4"	10 ipm
Severance (hand cutting)	1-1/2"	5 ipm
Pierce*	3/4"	

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

Capacity	Metal removal rate	Groove profile*
	Gouging	
Typical gouge	19.5 lbs. per hour	.23" D x .28" W

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

Specifications

Input voltages	200–480 V, 1-PH, 50/60 Hz 200–600 V, 3-PH, 50/60 Hz
Kilowatt output	12.2 kW
Input current @ 12.2 kW	200/208/240/480 V, 1-PH 70/68/58/29 A 200/208/240/480/600 V, 3-PH 42/40/35/18/17 A
Output current	25–85 A
Rated output voltage	143 VDC
Duty cycle @ 104° F	60% @ 85 A, 230–600 V, 3-PH 60% @ 85 A, 480 V, 1-PH 50% @ 85 A 240 V, 1-PH 50% @ 85 A, 200–208 V, 3-PH 40% @ 85 A, 200–208 V, 1-PH 100% @ 66 A, 230–600 V, 1/3-PH
Open circuit voltage (OCV)	305 VDC
Dimensions with handles	19.7" D; 9.2" W; 17.9" H
Weight with 25' torch	71 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	20 kW for full 85 A output
Certifications	CSA-certified for use in the Americas and Asia, except China.
Warranty	Power supply: 3-year Torch: 1-year

Hand systems	
087144	Powermax85® system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 25' leads
087145	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 50' leads
087113	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 25' lead
087114	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 50' lead
087108	Powermax85 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 25' lead
087109	Powermax85 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 50' lead
087111	Powermax85 system, 200–600 V 1/3-PH, CSA, plus 75° handheld torch w/consumables, 25' lead, filter w/guard
087126*	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead, English training kit
087128*	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead and French training kit

*for qualified institutions only – pre-approval required to order

Machine systems	
087135	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 75° and 180° torches w/consumables, 25' lead, remote
087115	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
087116	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
087132	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead
087137	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead
087138	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC and Serial ports, 180° torch w/consumables, 25' lead w/ring
087140	Powermax85 system, 200–600 V 1/3-PH, CSA, plus CPC and Serial ports, 180° torch w/consumables, 50' lead w/ring

Powermax85 power supplies (power supplies only, no torches)	
087067	Powermax85 power supply, 200–600 V 1/3-PH, CSA
087104	Powermax85 power supply, 200–600 V 1/3-PH, CSA, plus CPC port
087105	Powermax85 power supply, 200–600 V 1/3-PH, CSA, plus CPC and serial ports

Duramax series torch assemblies	
Below are torches that were designed for use with the Powermax85 power supplies, however additional torch models are compatible. Refer to page 30 for more information.	
059473	Duramax® handheld torch, 75°, 25' lead
059474	Duramax handheld torch, 75°, 50' lead
059475	Duramax handheld torch, 75°, 75' lead
059470	Duramax handheld torch, 15°, 25' lead
059471	Duramax handheld torch, 15°, 50' lead
059472	Duramax handheld torch, 15°, 75' lead
059476	Duramax machine torch, 180°, 15' lead
059477	Duramax machine torch, 180°, 25' lead
059478	Duramax machine torch, 180°, 35' lead
059479	Duramax machine torch, 180°, 50' lead
059480	Duramax machine torch, 180°, 75' lead
059481	Duramax mini machine torch, 180°, 15' lead
059482	Duramax mini machine torch, 180°, 25' lead
059483	Duramax mini machine torch, 180°, 35' lead
059484	Duramax mini machine torch, 180°, 50' lead
059466	Duramax robotic torch, 180°, 25' lead
059587	Duramax robotic torch, 180°, 50' lead
059464	Duramax robotic torch, 45°, 25' lead
059585	Duramax robotic torch, 45°, 50' lead
059465	Duramax robotic torch, 90°, 25' lead
059586	Duramax robotic torch, 90°, 50' lead

Powermax85 work leads	
223035	85 A work lead with hand clamp, 25'
223034	85 A work lead with hand clamp, 50'
223033	85 A work lead with hand clamp, 75'
223203	85 A work lead with c-clamp, 25'
223204	85 A work lead with c-clamp, 50'
223205	85 A work lead with c-clamp, 75'
223209	85 A work lead with ring terminal, 25'
223210	85 A work lead with ring terminal, 50'
223211	85 A work lead with ring terminal, 75'

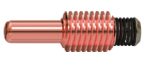
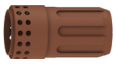
Automated control accessories	
128650	Remote on/off switch for machine torch, 25'
128651	Remote on/off switch for machine torch, 50'
128652	Remote on/off switch for machine torch, 75'
428755	Remote on/off switch for machine torch, 150'
228697	Upgrade kit: CPC port with selectable voltage ratio
228539	Upgrade kit: Serial interface port (RS-485)
023206	Machine interface cable without voltage divider signal, spade connectors, 25'
023279	Machine interface cable without voltage divider signal, spade connectors, 50'
228350	Machine interface cable with voltage divider signal, spade connectors, 25'
228351	Machine interface cable with voltage divider signal, spade connectors, 50'
123896	Machine interface cable with voltage divider signal, D-sub connector, 50'
223236	Serial interface RS-485 to unterminated, 25'
223237	Serial interface RS-485 to unterminated, 50'
223239	Serial interface RS-485 to 9-pin D-sub connector, 25'
223240	Serial interface RS-485 to 9-pin D-sub connector, 50'
228806	Clamp assembly for Duramax® robotic torches
229456	Robotic torch teach tip assembly for Duramax robotic torches

Torch consumables	
220842	Electrode, Duramax and Duramax Lock, 10–105 A
220777	Electrode, 15–105 A, CopperPlus™
420408	Electrode, Duramax and Duramax Lock, 30–65 A, HyAccess™
420635	Electrode, Duramax and Duramax Lock, 30–45 A, FlushCut™
220941	Nozzle, Duramax and Duramax Lock, 45 A
220819	Nozzle, Duramax, 65 A, cutting
220816	Nozzle, Duramax, 85 A, cutting
220930	Nozzle, Duramax and Duramax Lock, 30–45 A, FineCut®
220797	Nozzle, Duramax, 45–85 A, gouging
420410	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess cutting
420412	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess gouging
420633	Nozzle shield, Duramax and Duramax Lock,30–45 A, FlushCut
220857	Swirl ring, Duramax and Duramax Lock, 10–85 A
220947	Swirl ring, Duramax and Duramax Lock, 30–45 A, FineCut
420634	Swirl ring, Duramax and Duramax Lock, 30–45 A, FlushCut
220798	Shield, Duramax, 45–105 A, max removal gouging
420480	Shield, Duramax and Duramax Lock, 26–105 A, max control gouging
220818	Shield, Duramax and Duramax Lock, 15–85 A, drag cutting
220817	Shield, Duramax and Duramax Lock, 15–85 A, mechanized cutting
220948	Shield, Duramax, mechanized ohmic, 30–45 A, FineCut
220955	Deflector, Duramax and Duramax Lock, 15–105 A, mechanized cutting
220931	Shield, Duramax and Duramax Lock, 30–45 A, FineCut
220854	Retaining cap, Duramax and Duramax Lock, 10–105 A
220953	Retaining cap, mechanized ohmic, Duramax and Duramax Lock, 15–105 A
420413	Retaining cap, Duramax and Duramax Lock, 30–65 A, HyAccess
420536	Retaining cap, Duramax and Duramax Lock, 30–105 A, FlushCut
420540	Retaining ring, Duramax and Duramax Lock, 30–105 A, FlushCut

Consumable kits and packs	
851468	Consumable kit, Powermax85® Essential handheld, 85 A, cutting
851469	Consumable kit, Powermax85 Essential mechanized, 85 A, cutting
851470	Consumable kit, Powermax85 Essential mechanized ohmic, 85 A, cutting
428414	Consumable kit, Duramax® and Duramax Lock, 30–65 A, HyAccess™ cutting and gouging
428746	Consumable kit, Duramax and Duramax Lock, 30–45 A, FlushCut™
428445	Starter pack, Duramax, HyAccess, 30–65 A, cutting, qty. 1 each 420413, 420410 and 420408
428446	Starter pack, Duramax, HyAccess, 30–65 A, gouging, qty. 1 each 420413, 420412 and 420408
228767	Bulk pack, electrode, Duramax, 10–105 A, contains 220842, qty. 25
228934	Bulk pack, electrode, CopperPlus, 10–105 A, contains 220777, qty. 25
228765	Bulk pack, nozzle, Duramax, 45 A, contains 220941, qty. 25
228759	Bulk pack, nozzle, Duramax, 65 A, contains 220819, qty. 25
228760	Bulk pack, nozzle, Duramax, 85 A, contains 220816, qty. 25
228761	Bulk pack, nozzle, Duramax FineCut, 30–45 A, contains 220930, qty. 25
228762	Bulk pack, nozzle, Duramax gouging, 45–85 A, contains 220797, qty. 25
228764	Bulk pack, shield, Duramax drag cutting, 15–85 A, contains 220818, qty. 10
228763	Bulk pack, shield, Duramax mechanized, 15–85 A, contains 220817, qty. 10
228966	Consumable starter kit Powermax85 handheld (for à la carte system ordering)
228967	Consumable starter kit Powermax85, mechanized (for à la carte system ordering)
228968	Consumable starter kit Powermax85, mechanized with ohmic retaining cap (for à la carte system ordering)

Optional system accessories	
229370	Powermax65/85 wheel kit
229569	Powermax65/85 gantry mounting kit for cutting tables
127301	System storage dust cover, Powermax65/85
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
228570	Eliminizer air filtration kit with steel guard for Powermax65/85
228624	Powermax65/85 steel guard for eliminizer air filtration kit
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
127363	Torch carry bag, 23" x 11" x 11"
024877	Leather torch lead cover with hook and loop closure, black, 25' section
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder
428347	Gouging heat shield for Duramax series 75° hand torches, including Duramax retrofit torches.

Torch consumable stack-up

Consumable type	Torch type	Amperage	Shield/ Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Drag-cutting	Hand	45 65 85	220818	220854	220941 220819 220816	220842	220857
Mechanized	Machine	45 65 85	220817 or 220955[1]	220854 or 220953[2]	220941 220819 220816	220842	220857
FineCut®	Hand Machine	45	220931 220948	220854 or 220953[3]	220930	220842	220947
FlushCut	Hand/machine	30–45[3]	420540[4]	420536	420633	420635	420634
Max control gouging	Hand/machine	25–85	420480	220854	220797	220842	220857
Max removal gouging	Hand/machine	25–85	220798	220854	220797	220842	220857

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap
[3] Using the 45 amp FlushCut consumables on the Powermax85 above 45 amps will cause premature consumable damage
[4] Retaining ring

Powermax105®

Professional-grade plasma metal cutting and gouging system for handheld cutting 1-1/4" and mechanized piercing 7/8".

Maximum productivity

- Finish jobs faster with cut speeds three times greater than oxyfuel on 1/2" mild steel.
- Spend less time on grinding and edge preparation due to superior cut and gouge quality.

Low operating costs

- Reduce costs with long consumable life and more uptime.
- 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.
- 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.

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.

Torches

- To see details on all torches compatible with this system, please refer to the torch applications chart on page 34.

Capacity	Thickness	Cut speed
	Cutting	
Recommended	1-1/4"	20 ipm
	1-1/2"	10 ipm
Severance (hand cutting)	2"	5 ipm
Pierce*	7/8"	

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

Capacity	Metal removal rate	Groove profile*
	Gouging	
Typical gouge	21.7 lbs. per hour	.25" D x .29" W

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

Specifications

Input voltages	200–600 V, 3-PH, 50/60 Hz
Kilowatt output	16.8 kW
Input current @ 16.8 kW	200/208/240/480/600 V, 3-PH 58/56/49/25/22 A
Output current	30–105 A
Rated output voltage	160 VDC
Duty cycle @ 104° F	70% @ 105 A, 240 V, 3-PH 80% @ 105 A, 480–600 V, 3-PH 100% @ 94 A, 480–600 V, 3-PH 100% @ 88 A, 240 V, 3-PH
Open circuit voltage (OCV)	300 VDC
Dimensions with handles	23.3" D; 10.8" W; 20.0" H
Weight with 25' torch	100 lbs.
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 460 scfh, 6.7 scfm @ 85 psi Gouging: 480 scfh, 8.0 scfm @ 70 psi
Input power cable length	10'
Power supply type	Inverter – IGBT
Engine drive requirement	30 kW for full 105 A output
Certifications	CSA-certified for use in the Americas and Asia, except China
Warranty	Power supply: 3-year Torch: 1-year

Hand systems	
059382	Powermax105® system, 200–600 V 3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 25' leads
059383	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° and 15° handheld torches w/consumables, 50' leads
059376	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 25' lead
059377	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 50' lead
059374	Powermax105 system, 200–600 V 3-PH, CSA, plus 75° handheld torch w/consumables, 25' lead
059375	Powermax105 system, 200–600 V 3-PH, CSA, plus 75° handheld torch w/consumables, 50' lead
059385*	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead, English training kit
059485*	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° torch w/consumables, 25' lead and French training kit

*for qualified institutions only – pre-approval required to order

Machine systems	
059384	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 75° and 180° torches w/consumables, 25' lead
059378	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
059379	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
059380	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead
059381	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead
059386	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 25' lead w/ring
059387	Powermax105 system, 200–600 V 3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 50' lead w/ring

Powermax105 power supplies (power supplies only, no torches)	
059370	Powermax105 power supply, 200–600 V 3-PH, CSA
059371	Powermax105 power supply, 200–600 V 3-PH, CSA, plus CPC port
059372	Powermax105 power supply, 200–600 V 3-PH, CSA, plus CPC and serial ports

Duramax series torch assemblies	
Below are torches that were designed for use with the Powermax105 power supplies, however additional torch models are compatible. Refer to page 34 for more information.	
059473	Duramax® handheld torch, 75°, 25' lead
059474	Duramax handheld torch, 75°, 50' lead
059475	Duramax handheld torch, 75°, 75' lead
059470	Duramax handheld torch, 15°, 25' lead
059471	Duramax handheld torch, 15°, 50' lead
059472	Duramax handheld torch, 15°, 75' lead
059476	Duramax machine torch, 180°, 15' lead
059477	Duramax machine torch, 180°, 25' lead
059478	Duramax machine torch, 180°, 35' lead
059479	Duramax machine torch, 180°, 50' lead
059480	Duramax machine torch, 180°, 75' lead
059481	Duramax mini machine torch, 180°, 15' lead
059482	Duramax mini machine torch, 180°, 25' lead
059483	Duramax mini machine torch, 180°, 35' lead
059484	Duramax mini machine torch, 180°, 50' lead
059466	Duramax robotic torch, 180°, 25' lead
059587	Duramax robotic torch, 180°, 50' lead
059464	Duramax robotic torch, 45°, 25' lead
059585	Duramax robotic torch, 45°, 50' lead
059465	Duramax robotic torch, 90°, 25' lead
059586	Duramax robotic torch, 90°, 50' lead

Powermax105 work leads	
223254	Kit: 105 A work lead with hand clamp, 25'
223255	Kit: 105 A work lead with hand clamp, 50'
223256	Kit: 105 A work lead with hand clamp, 75'
223287	Kit: 105 A work lead with C-style clamp, 25'
223288	Kit: 105 A work lead with C-style clamp, 50'
223289	Kit: 105 A work lead with C-style clamp, 75'
223284	Kit: 105 A work lead with ring terminal, 25'
223285	Kit: 105 A work lead with ring terminal, 50'
223286	Kit: 105 A work lead with ring terminal, 75'

Automated control accessories	
128650	Remote on/off switch for machine torch, 25'
128651	Remote on/off switch for machine torch, 50'
128652	Remote on/off switch for machine torch, 75'
428755	Remote on/off switch for machine torch, 150'
228884	Upgrade kit: Powermax105® CPC port with selectable voltage ratio
228539	Upgrade kit: Serial interface port (RS-485)
023206	Machine interface cable without voltage divider signal, spade connectors, 25'
023279	Machine interface cable without voltage divider signal, spade connectors, 50'
228350	Machine interface cable with voltage divider signal, spade connectors, 25'
228351	Machine interface cable with voltage divider signal, spade connectors, 50'
223048	Machine interface cable with voltage divider signal, D-sub connector, 25'
123896	Machine interface cable with voltage divider signal, D-sub connector, 50'
223236	Serial Interface RS-485 Cable to Unterminated, 25'
223237	Serial Interface RS-485 Cable to Unterminated, 50'
223239	Serial Interface RS-485 Cable to 9-pin D-sub Connector 25'
223240	Serial Interface RS-485 Cable to 9-pin D-sub Connector 50'
228806	Clamp assembly for Duramax® robotic torches
229456	Robotic torch teach tip assembly for Duramax robotic torches

Torch consumables	
220842	Electrode, Duramax and Duramax Lock, 10–105 A
220777	Electrode, 15–105 A, CopperPlus™
420408	Electrode, Duramax and Duramax Lock, 30–65 A, HyAccess™
220941	Nozzle, Duramax and Duramax Lock, 45 A
220819	Nozzle, Duramax, 65 A, cutting
220816	Nozzle, Duramax, 85 A, cutting
220990	Nozzle, Duramax, 105 A, cutting
220930	Nozzle, Duramax and Duramax Lock, 30–45 A, FineCut®
220797	Nozzle, Duramax, 45–85 A, gouging
220991	Nozzle, Duramax, 105 A, gouging
420410	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess cutting
420412	Nozzle, Duramax and Duramax Lock, 30–65 A, HyAccess gouging
420533	Nozzle shield, Duramax, 105 A FlushCut
220857	Swirl ring, Duramax and Duramax Lock, 10–85 A
220994	Swirl ring, Duramax, 30–105 A
220947	Swirl ring, Duramax and Duramax Lock, 30–45 A, FineCut
420539	Swirl ring, Duramax, 105 A, FlushCut
220798	Shield, Duramax, 45–105 A, max removal gouging
420480	Shield, Duramax and Duramax Lock, 26–105 A, max control gouging
220818	Shield, Duramax and Duramax Lock, 15–85 A, drag cutting
220992	Shield, Duramax, 30–105 A, handheld
220817	Shield, Duramax and Duramax Lock, 15–85 A, mechanized cutting
220993	Shield, Duramax, 30–105 A, mechanized
220948	Shield, Duramax, mechanized ohmic, 30–45 A, FineCut
220955	Deflector, Duramax and Duramax Lock, 15–105 A, mechanized cutting
220931	Shield, Duramax and Duramax Lock, 30–45 A, FineCut
220854	Retaining cap, Duramax and Duramax Lock, 10–105 A
220953	Retaining cap, mechanized ohmic, Duramax and Duramax Lock, 15–105 A
420413	Retaining cap, Duramax and Duramax Lock, 30–65 A, HyAccess
420536	Retaining cap, Duramax and Duramax Lock, 30–105 A, FlushCut
420540	Retaining ring, Duramax and Duramax Lock, 30–105 A, FlushCut

Consumable kits and packs	
851471	Consumable kit, Powermax105® Essential handheld, 105 A, cutting
851472	Consumable kit, Powermax105 Essential mechanized, 105 A, cutting
851473	Consumable kit, Powermax105 Essential mechanized ohmic, 105 A, cutting
428414	Consumable kit, Duramax® and Duramax Lock, 30–65 A, HyAccess™ cutting and gouging
428445	Starter pack, Duramax, HyAccess, 30–65 A, cutting, qty. 1 each 420413, 420410 and 420408
428446	Starter pack, Duramax, HyAccess, 30–65 A, gouging, qty. 1 each 420413, 420412 and 420408
428647	Consumable kit, Duramax, 105 A, FlushCut™
228767	Bulk pack, electrode, Duramax, 10–105 A, contains 220842, qty. 25
228934	Bulk pack, electrode, CopperPlus, 10–105 A, contains 220777, qty. 25
228765	Bulk pack, nozzle, Duramax, 45 A, contains 220941, qty. 25
228759	Bulk pack, nozzle, Duramax, 65 A, contains 220819, qty. 25
228760	Bulk pack, nozzle, Duramax, 85 A, contains 220816, qty. 25
228797	Bulk pack, nozzle, Duramax, 105 A, contains 220990 qty. 25
228761	Bulk pack, nozzle, Duramax FineCut, 30–45 A, contains 220930, qty. 25
228762	Bulk pack, nozzle, Duramax gouging, 45–85 A, contains 220797, qty. 25
228764	Bulk pack, shield, Duramax drag cutting, 15–85 A, contains 220818, qty. 10
228798	Bulk pack, shield, Duramax, 105 A, contains 220992, qty. 10
228763	Bulk pack, shield, Duramax mechanized, 15–85 A, contains 220817, qty. 10
228799	Bulk pack, shield, Duramax, 105 A, contains 220993, qty. 10
228849	Consumable starter kit Powermax105 handheld (for à la carte system ordering)
228848	Consumable starter kit Powermax105, mechanized (for à la carte system ordering)
228969	Consumable starter kit Powermax105, mechanized with ohmic retaining cap (for à la carte system ordering)

Optional accessories	
229467	Powermax105/125 wheel kit
229570	Powermax105/125 gantry mounting kit for cutting tables
127360	System storage dust cover, Powermax105/125
228890	Eliminizer air filtration kit with steel guard for Powermax105/125
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
101215	Steel guard for eliminizer filter for Powermax105/125
127363	Torch carry bag, 23" x 11" x 11"
024877	Leather torch lead cover with hook and loop closure, black, 25' section
027668	Plasma circle cutting guide, deluxe kit with magnetic base
127102	Plasma circle cutting guide, basic
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017059	Bevel guide
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder
428347	Gouging heat shield for Duramax series 75° hand torches, including Duramax retrofit torches.

Torch consumable stack-up

Consumable type	Torch type	Amperage	Shield/ Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Drag-cutting	Hand	45 65 85	220818	220854	220941 220819 220816	220842	220994
		105	220992		220990		
Mechanized	Machine	45 65 85	220817 or 220955[1]	220854 or 220953[2]	220941 220819 220816	220842	220994
		105	220993 or 220955[1]		220990		
FineCut®	Hand Machine	45	220931 220948	220854 or 220953[2]	220930	220842	220947
FlushCut	Hand/machine	30–45[3] 65–105[3]	420540[5]	420536	420633 420533	420635 220842 or 220777[4]	420634 420539
Max control gouging	Hand/machine	30–105	420480	220854	220797	220842	220994
Max removal gouging	Hand/machine	30–105	220798	220854	220991	220842	220994

[1] Deflector for unshielded cutting
[2] Ohmic retaining cap
[3] Using the 45 amp FlushCut consumables on the Powermax105 above 45 amps will cause premature consumable damage.
[4] For longer consumable life when cutting metal 1/2 inch (12 mm) and under, check out the CopperPlus electrode (part number 220777).
[5] Retaining ring

Powermax125®

Professional-grade plasma metal cutting and gouging system for handheld cutting (1-1/2") and mechanized piercing 1".

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.

Torches

- To see details on all torches compatible with this system, please refer to the torch applications chart on page 34.

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. per hour	0.17–0.31" D x W

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

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 with 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: 550 scfh @ 85 psi Gouging: 450 scfh @ 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 supply: 3-year Torch: 1-year

Hand systems	
059538	Powermax125® system, 480 V 3-PH, CSA, plus CPC port, 85° and 15° handheld torches w/consumables, 25' lead
059569	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 85° and 15° handheld torches w/consumables, 50' lead
059536	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 85° handheld torch w/consumables, 25' lead
059537	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 85° handheld torch w/consumables, 50' lead
059571*	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 75° handheld torch w/consumables, 25' lead, English training kit
059555	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 85° and 15° handheld torches w/consumables, 25' lead
059570	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 85° and 15° handheld torches w/consumables, 50' lead
059546	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 85° handheld torch w/consumables, 25' lead
059547	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 85° handheld torch w/consumables, 50' lead

*For qualified institutions only – pre-approval required to order

Machine systems	
059539	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
059540	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
059542	Powermax125 system, 480 V 3-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 25' lead
059543	Powermax125 system, 480 V 3-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 50' lead
059541	Powermax125 system, 480 V 3-PH, CSA, plus CPC port, 85° torch w/25' lead, 180° torch w/50' lead w/consumables, remote
059544	Powermax125 system, 480 V 3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 25' lead w/ring, cables
059545	Powermax125 system, 480 V 3-PH, CSA, plus CPC and Serial ports, 180° torch w/consumables, 50' lead w/ring, cables
059552	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 25' lead, remote
059553	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 180° machine torch w/consumables, 50' lead, remote
059550	Powermax125 system, 600 V 3-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 25' lead
059551	Powermax125 system, 600 V 3-PH, CSA, plus CPC and serial ports, 180° machine torch w/consumables, 50' lead
059554	Powermax125 system, 600 V 3-PH, CSA, plus CPC port, 85° torch w/25' lead, 180° torch w/50' lead, consumables, remote
059548	Powermax125 system, 600 V 3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 25' lead w/ring, cables
059549	Powermax125 system, 600 V 3-PH, CSA, plus CPC and serial ports, 180° torch w/consumables, 50' lead w/ring, cables

Powermax125 Power Supplies (power supplies only, no torches)	
059488	Powermax125 power supply, 480 V 3-PH, CSA, plus CPC port
059509	Powermax125 power supply, 600 V 3-PH, CSA, plus CPC port
059489	Powermax125 power supply, 480 V 3-PH, CSA, plus CPC and serial ports
059669	Powermax125 power supply, 480 V 3-PH, CSA, plus CPC port, no power cord
059510	Powermax125 power supply, 600 V 3-PH, CSA, plus CPC and serial ports

Duramax Hyamp series torch assemblies	
059492	Duramax® Hyamp™ handheld torch, 85°, 25' lead
059493	Duramax Hyamp handheld torch, 85°, 50' lead
059494	Duramax Hyamp handheld torch, 85°, 75' lead
059665	Duramax Hyamp handheld torch, 85°, 150' lead
059495	Duramax Hyamp handheld torch, 15°, 25' lead
059496	Duramax Hyamp handheld torch, 15°, 50' lead
059497	Duramax Hyamp handheld torch, 15°, 75' lead
059664	Duramax Hyamp handheld torch, 15°, 150' lead
059562	Duramax Hyamp long handheld torch 45°, 2' extension, 25' lead
059579	Duramax Hyamp long handheld torch 45°, 2' extension, 50' lead
059667	Duramax Hyamp long handheld torch 45°, 4' extension, 150' lead
059563	Duramax Hyamp long handheld torch 90°, 2' extension, 25' lead
059580	Duramax Hyamp long handheld torch 90°, 2' extension, 50' lead
059567	Duramax Hyamp long handheld torch 45°, 4' extension, 25' lead
059581	Duramax Hyamp long handheld torch 45°, 4' extension, 50' lead
059568	Duramax Hyamp long handheld torch 90°, 4' extension, 25' lead
059582	Duramax Hyamp long handheld torch 90°, 4' extension, 50' lead
059668	Duramax Hyamp long handheld torch 90°, 4' extension, 150' lead
059519	Duramax® Hyamp™ machine torch, 180°, 15' lead
059520	Duramax Hyamp machine torch, 180°, 25' lead
059521	Duramax Hyamp machine torch, 180°, 35' lead
059522	Duramax Hyamp machine torch, 180°, 50' lead
059523	Duramax Hyamp machine torch, 180°, 75' lead
059514	Duramax Hyamp mini machine torch, 180°, 15' lead
059515	Duramax Hyamp mini machine torch, 180°, 25' lead
059516	Duramax Hyamp mini machine torch, 180°, 35' lead
059517	Duramax Hyamp mini machine torch, 180°, 50' lead
059666	Duramax Hyamp mini machine torch, 180°, 150' lead
059564	Duramax Hyamp robotic torch, 45°, 25' lead
059670	Duramax Hyamp robotic torch, 45°, 50' lead
059565	Duramax Hyamp robotic torch, 90°, 25' lead
059671	Duramax Hyamp robotic torch, 90°, 50' lead
059566	Duramax Hyamp robotic torch, 180°, 25' lead
059672	Duramax Hyamp robotic torch, 180°, 50' lead

Powermax125 work leads	
223292	Kit: 125 A work lead with hand clamp, 25'
223293	Kit: 125 A work lead with hand clamp, 50'
223294	Kit: 125 A work lead with hand clamp, 75'
223737	Kit: 125 A work lead with hand clamp, 150'
223295	Kit: 125 A work lead with ring terminal, 25'
223296	Kit: 125 A work lead with ring terminal, 50'
223297	Kit: 125 A work lead with ring terminal, 75'
223298	Kit: 125 A work lead with C-style clamp, 25'
223299	Kit: 125 A work lead with C-style clamp, 50'
223300	Kit: 125 A work lead with C-style clamp, 75'

Automated control accessories	
128650	Remote on/off switch for machine torch, 25'
128651	Remote on/off switch for machine torch, 50'
128652	Remote on/off switch for machine torch, 75'
428755	Remote on/off switch for machine torch, 150'
228884	Upgrade kit: Powermax® 105/125 CPC port with selectable voltage ratio
228539	Upgrade kit: Serial interface port (RS-485)
023206	Machine interface cable without voltage divider signal, spade connectors, 25'
023279	Machine interface cable without voltage divider signal, spade connectors, 50'
228350	Machine interface cable with voltage divider signal, spade connectors, 25'
228351	Machine interface cable with voltage divider signal, spade connectors, 50'
223048	Machine interface cable with voltage divider signal, D-sub connector, 25'
123896	Machine interface cable with voltage divider signal, D-sub connector, 50'
223236	Serial interface RS-485 cable to unterminated, 25'
223237	Serial interface RS-485 cable to unterminated, 50'
223239	Serial interface RS-485 cable to 9-pin D-sub connector 25'
223240	Serial interface RS-485 cable to 9-pin D-sub connector 50'
228806	Clamp assembly for Duramax/Duramax Hyamp robotic torches

Torch consumables	
220971	Electrode, Duramax Hyamp, 30–125 A
420553	Electrode, Duramax Hyamp, 125 A, FlushCut™
220975	Nozzle, Duramax Hyamp, 125 A
420169	Nozzle, Duramax Hyamp, 65 A
420158	Nozzle, Duramax Hyamp, 45 A
420151	Nozzle, Duramax Hyamp, 30–45 A, FineCut®
420001	Nozzle, Duramax Hyamp, 65–125 A, gouging
420489	Nozzle shield assembly, Duramax Hyamp, 125 A, FlushCut
420000	Shield, Duramax Hyamp, 125 A, drag cutting
220976	Shield, Duramax Hyamp, 105–125 A, mechanized
420112	Shield, Duramax Hyamp, 65–125 A, max removal gouging
420509	Shield, Duramax Hyamp, 65–125 A, max control gouging
420168	Shield, Duramax Hyamp, 45–65 A, mechanized
420172	Shield, Duramax Hyamp, 45–65 A, drag cutting
420152	Shield, Duramax Hyamp, 30–45 A, FineCut
220997	Swirl ring, Duramax Hyamp, 30–125 A
420159	Swirl ring, Duramax Hyamp, 30–45 A, FineCut handheld
420484	Swirl ring, Duramax Hyamp, 125 A, FlushCut
220977	Retaining cap, Duramax Hyamp, 30–125 A
420156	Retaining cap, Duramax Hyamp, 30–125 A, mechanized ohmic
420490	Retaining cap, Duramax Hyamp, 125 A, FlushCut
420485	Retaining ring, Duramax Hyamp, 125 A, FlushCut

Consumable kits	
851474	Consumable kit, Powermax125® Essential handheld, 125 A, cutting
851475	Consumable kit, Powermax125 Essential mechanized, 125 A, cutting
851476	Consumable kit, Powermax125 Essential mechanized ohmic, 125 A, cutting
428713	Consumable kit, Duramax® Hyamp™, 125A, FlushCut™
428099	Consumable starter kit Powermax125 handheld (for à la carte system ordering)
428100	Consumable starter kit Powermax125, mechanized (for à la carte system ordering)
428101	Consumable starter kit Powermax125, mechanized with ohmic retaining cap (for à la carte system ordering)

Optional system accessories	
229467	Powermax105/125 wheel kit
229570	Powermax105/125 power supply gantry mounting kit for cutting tables
127360	System storage dust cover, Powermax105/125
228890	Eliminizer air filtration kit with steel guard for Powermax105/125
128647	Eliminizer air filtration kit, 1-micron filter and auto-drain moisture separator
011092	Replacement filter element for eliminizer air filter
428719	Oil removal air filtration kit, 0.01-micron coalescing oil extracting filter
428718	Wall mounting bracket kit for eliminizer air filter or oil removal air filter
428720	Replacement filter element for oil removal air filter kit
101215	Steel guard for eliminizer filter for Powermax105/125
229832	Teach tip assembly, Hyamp robotic torch
127363	Torch carry bag, 23" x 11" x 11"

Optional system accessories (continued)	
017049	Long torch carry bag for 2' torch
017050	Long torch carry bag for 4' torch
024877	Leather torch lead cover with hook and loop closure, black, 25' section
017053	Plasma circle cutting guide for Duramax Hyamp torch, deluxe kit with magnetic base
017041	Plasma angle cutting guide
017042	Magnetic straight edge
017058	Bevel guide for Duramax Hyamp
017043	Magnetic block 2-pack
017044	Pocket level and measuring tape holder
428348	Gouging heat shield for Duramax Hyamp 80° hand torches
428809	Skeleton cutting sled for Duramax Hyamp Long torches
428495	Hyamp torch adapter for Powermax125/MAXPRO200® machine torches

Torch consumable stack-up

Consumable type	Torch type	Amperage	Shield/ Deflector	Retaining cap	Nozzle	Electrode	Swirl ring
Drag-cutting	Hand	45 65 125	420172 420172 420000	220977	420158 420169 220975	220971	220997
Mechanized	Machine	45 65 125/105	420168 420168 220976	220977 or 420156[1]	420158 420169 220975	220971	220997
FineCut®	Hand Machine	45	420152	220977 or 420156[1]	420151	220971	420159 220997
Hyamp FlushCut	Hand/machine	85–125	420485[2]	420490	420489	420553	420484
Max removal gouging	Hand/machine	30–125	420112	220977	420001	220971	220997
Max control gouging	Hand/machine	30–125	420519	220977	420001	220971	220997

[1] Ohmic retaining cap
[2] Retaining ring

Personal protective equipment

Dual face shield for slotted hard hat

ANSI Z87.1, CSA Z94.3, CE
017047 Shade 6
017048 Shade 8
017046 Hard hat

Dual face shield

127239 Shade 6
127103 Shade 8

Leather cutting gloves

127169

Hyamp™ cutting and gouging gloves

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

Neck guard

017030

Gouging heat shield

128658 T45v; T60/80/100
428347 Duramax®
428348 Duramax Hyamp™

Cutting goggles

ANSI Z87.1, CSA Z94.3, CE
017035 Shade 5

Adjustable eye shades

127416 Shade 5

Clear safety shields

017034

Flip-up eye shades

ANSI Z87.1, CSA Z94.3, CE
017033 Shade 5

System accessories

Air filtration kits

128647 Filter kit only
228570 Powermax® 65/85, kit and cover
228890 Powermax105/125, kit and cover
011092 Replacement filter element

Leather torch sheathing

024877 Black leather 25'

Wheel/gantry kits

229370 Powermax65/85, wheel kit
229569 Powermax65/85, gantry kit
229467 Powermax105/125, wheel kit
229570 Powermax105/125, gantry kit

System dust covers

127144 Powermax30/30 XP
127469 Powermax30 AIR
127219 Powermax45/45 XP
127301 Powermax65/85
127360 Powermax105/125

Rolling tool bag

017060 19.5" x 17.5" x 12.5"

Remote trigger pendant

128650 25'
128651 50'
128652 75'

Torch carry bag

127363 23" x 11" x 11"
017049 Duramax® Hyamp™ 2'

Hyamp torch adapter

428495

Cutting guides

Circle cutting guide

127102 Basic
027668 Deluxe
017053 Duramax Hyamp

Angle cutting guide

017041

Pocket level and tape magnet

017044

Magnetic straight edge

017042

Bevel cutting guide

017059 Standard
017058 Duramax Hyamp

Magnetic block 2-pack

017043

Torch applications for Powermax® 45XP/65/85/105/125

Powermax® torch product line overview

Hypertherm® offers an extensive array of torch options for the Powermax line of plasma systems.

Color code	Torch series	System compatibility	Torch style(s)					
			Hand torch	Straight hand torches	Straight machine torches	Short machine torches	Robotic torches	Long torches
	Air T30 (designed for)	Powermax30 AIR	15 ft. lead					
	Duramax LT (designed for)	Powermax30 XP	15 ft. lead					
	Duramax Lock (designed for)	Powermax45 XP	20 ft. lead 50 ft. lead	20 ft. lead 50 ft. lead	25 ft. lead 35 ft. lead 50 ft. lead			
	Duramax (designed for)	Powermax65 Powermax85 Powermax105	25 ft. lead 50 ft. lead 75 ft. lead	25 ft. lead 50 ft. lead 75 ft. lead	15 ft. lead 25 ft. lead 35 ft. lead 50 ft. lead 75 ft. lead	15 ft. lead 25 ft. lead 35 ft. lead 50 ft. lead	25 ft. lead	
	Duramax (compatible)	Powermax45 XP						
	Duramax Hyamp (designed for)	Powermax125	25 ft. lead 50 ft. lead 75 ft. lead	25 ft. lead 50 ft. lead 75 ft. lead	15 ft. lead 25 ft. lead 35 ft. lead 50 ft. lead 75 ft. lead	15 ft. lead 25 ft. lead 35 ft. lead 50 ft. lead	25 ft. lead	2 ft. option 4 ft. option 6 ft. option 25 ft. lead 50 ft. lead
	Duramax Hyamp (compatible)	Powermax45 XP Powermax65 Powermax85 Powermax105						

Match the color code to the consumable packaging to select the correct consumables by torch series.

85° hand torch

180° mini machine torch

180° Duramax robotic torch

90° Duramax robotic torch

15° hand torch

180° full-length machine torch

45° Duramax robotic torch

45° Duramax Hyamp 2' Long torch

45° Duramax Hyamp 4' Long torch

Protect your investment. Choose genuine Hypertherm torches and consumables to keep your Powerrmax® system running at peak performance. Incorporating the latest technologies and manufactured to the highest standards, Hypertherm consumables enhance cut quality, extend consumable life, and boost productivity.

Drag cutting	Consumables for placing the torch directly on the work piece without a standoff.
Mechanized cutting	Consumables for portable automation, CNC table and robotic cutting.
Max control gouging	Consumables for precise metal removal, shallower gouge profiles and light metal washing.
Max removal gouging	Consumables for aggressive metal removal, deep gouge profiles and extreme metal washing.
Precision gouging	Consumables for spot and tack weld removal at very low output current (<25 A).
Marking	Consumables for scoring, indicating part identification, hole or weld locations.
Extended reach cutting	HyAccess™, extended reach consumables for improved visibility and accessibility when cutting or gouging in confined spaces.
Fine feature cutting	FineCut® consumables for narrow kerf width with minimal dross and heat affected zone.
Flush cutting	FlushCut™ consumables for cutting closer to base materials as possible without piercing or damaging the workpiece.

Consumable kits

- Powermax® Essential consumable kits – designed to provide the optimal mix of cutting consumables for your Powermax system
- HyAccess™ and FlushCut™ kits
- Dual pack electrode/nozzle kits for Powermax30 AIR and Powermax30 XP
- Bulk kits – economical for high volume use of select consumables

FlushCut kits

FlushCut consumables for cutting closer to base materials as possible without piercing or damaging the workpiece.

Powermax system	Kit part number	Operating amperage
Powermax45 XP Powermax65 Powermax85	428746	15–45 A
Powermax105	428647	85–105 A
Powermax125	428713	85–125 A

Powermax Essential consumable kits

Powermax system	Handheld	Mechanized	Mechanized Ohmic
Powermax30 AIR	851462		
Powermax30 XP	851479		
Powermax45 XP	851510	851511	851512
Powermax65	851465	851466	851467
Powermax85	851468	851469	851470
Powermax105	851471	851472	851473
Powermax125	851474	851475	851476

Dual electrode/nozzle packs

Powermax system	Part number	Process
Powermax30 AIR	428350	Standard cutting
Powermax30 XP	428243	Standard cutting
	428244	FineCut®

HyAccess kits

Extended reach consumables for improved visibility and accessibility when cutting or gouging in confined spaces.

Powermax system	Kit type	Kit part number	Operating amperage
Powermax30 XP	Combination Cut/Gouging	428337	15–30 A
	Starter kit – Cutting	428443	
	Starter kit – Gouging	428444	
Powermax45 XP Powermax65 Powermax85 Powermax105	Combination Cut/Gouging	428414	15–65 A
	Starter kit – Cutting	428445	
	Starter kit – Gouging	428446	

Duramax® consumable bulk kits

Contents	Order quantity	Part number
Electrode (220777)	25	228934
Electrode (220842)	25	228767
Nozzle (220816)	25	228760
Nozzle (220819)	25	228759
Nozzle (220930)	25	228761
Nozzle (220797)	25	228762
Nozzle (220941)	25	228765
Nozzle (220990)	25	228797
Nozzle (220991)	25	228796
Shield (220992)	10	228798
Shield (220993)	10	228799
Shield (220817)	10	228763
Shield (220818)	10	228764

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