

Powermax family catalog

Only Hypertherm Powermax® delivers the highest reliability, cut quality, and ease of use. Provided by the best partner network in the world, Powermax helps hundreds of thousands of businesses increase their productivity and profitability. Invest wisely.



THE **BEST INVESTMENT** IS IN YOUR **POWER**



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Why Powermax?

Powermax® is the world's most versatile family of portable plasma cutters, delivering unmatched productivity and reliability. With the industry's most extensive handheld and automated cutting, marking, and gouging capabilities, customers can confidently tackle any job with superior cut quality and minimized secondary operations at a lower total cost of ownership. **The best in the world is worth the investment.**

Choose the best Powermax system for your long-term needs by considering these questions

Which Powermax will you invest in?

What metal thickness will you be cutting now and in the future?

Powermax plasma cuts from sheet metal thickness to 57 mm (2 1/4"). Choose the Powermax system with the recommended capacity for the metal thickness you expect to cut 80% of the time or more.

Will you be cutting or gouging with a handheld torch or 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 an engine-drive generator power the plasma system?

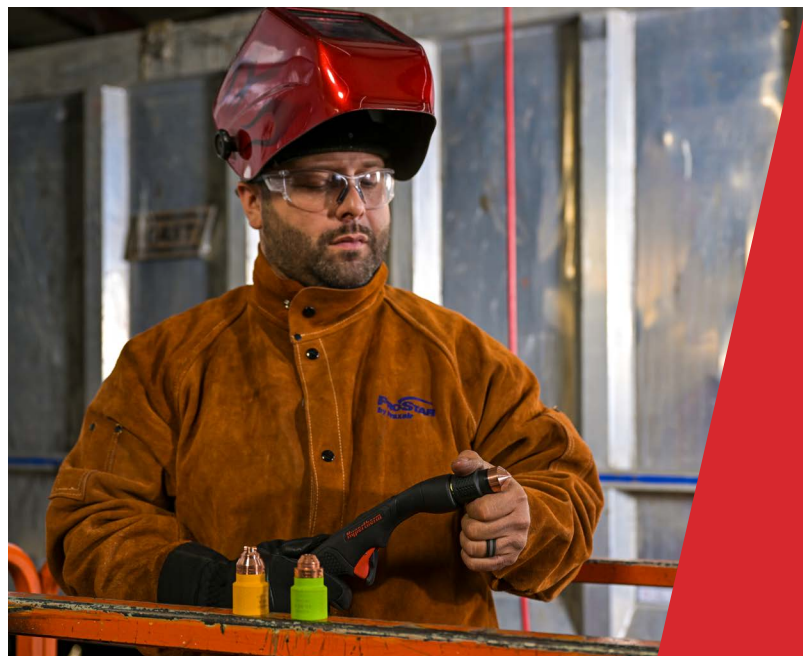
To deliver full performance, each Powermax system requires a minimum kilowatt output. For specific generator requirements, refer to the Powermax specification tables within.

What is your gas source?

Powermax systems require compressed air, nitrogen, or F5 gas for operation, and 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.

“With this machine, you can cut anywhere you go ... you just need the right consumable in your pocket. You can just do your job.”

LAFORGE 2.0
Artist



Powermax: Your best investment

There are plenty of options for plasma cutters, but only Powermax® offers a combination of the highest reliability, best cut quality, and ease of use from the best dealer network. Make a wise investment.



Invest in Profitability



Powermax delivers the best return on investment with a patented single-piece cartridge providing up to 5 times longer consumable life and greater cutting power than many higher-amperage competitors.



Invest in Reliability



Customers agree that Powermax plasma cutters are the industry's most rugged, with each component tested to perform reliably in extreme conditions. Built to last 10+ years, Powermax delivers whenever and wherever you need it.



Invest in Cut Quality



Powermax plasma cutters and our long-life cartridges provide better and more consistent cut quality, boosting productivity.

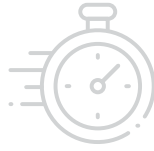


[Learn more](#)

The value of investing in a Powermax plasma cutter is clear



Invest in Simplicity



Powermax® plasma cutters and cartridges simplify your work. They are easy to use, and new operators can perform like professionals in minutes.



Invest in Versatility



Excel at your job and expand your cutting and gouging application capabilities with the broadest variety of Powermax plasma cartridges and torch options.



Invest in Long-term Support



We're committed to the long-lasting quality and performance of our Powermax plasma cutters, supporting them with replacement parts for 10+ years after we stop making the system—easy access to cartridges, parts, and superior support to maximize uptime.

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Plasma applications

Powermax plasma for gouging

Industry professionals rely on Powermax® systems for fast, clean, and precise gouging. Powermax is designed for portability and ease of use in industries including shipbuilding, heavy equipment manufacturing, rail maintenance, structural steel fabrication, and foundries.



Key gouging applications

- Back gouging
- Weld removal
- Crack repair
- Die casting cleanup
- Hardface removal



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Powermax plasma for beveling

Powermax offers a fast, flexible, and cost-effective solution for beveling—ideal for preparing edges for welding or creating angled cuts on a wide range of metals. Powermax excels in industries including structural steel fabrication, shipbuilding, heavy equipment manufacturing, pipeline construction, and metal fabrication shops.



Key beveling applications

- Weld prep
- Edge preparation
- Chamfering for part fit-up
- Angle cutting for custom fabrication



[LEARN MORE](#)

Powermax plasma for cast trimming

Powermax® systems are a powerful solution for trimming and cleaning casted parts offering speed, precision, and portability that outperforms traditional methods like grinding or sawing. Powermax excels in die casting and foundries, automotive and heavy equipment manufacturing, agricultural equipment, and industrial machinery.



Key cast trimming applications

- Riser and runner removal
- Flash trimming and gate removal
- Surface cleanup and defect removal
- Edge smoothing and part resizing



[LEARN MORE](#)

Powermax plasma for flush cutting

Flush cutting with Powermax enables operators to cut as close to the base material as possible to maximize material usage and eliminate waste. Powermax excels in heavy equipment repair and manufacturing, shipbuilding, structural steel fabrication, rail maintenance, fabrication, and custom metalwork.



Key flush cutting applications

- Remove lugs, brackets, and attachments
- Trim excess material from castings or fabrications
- Clean structural steel for retrofits or rework
- Cut close to base metal without grinding or gouging

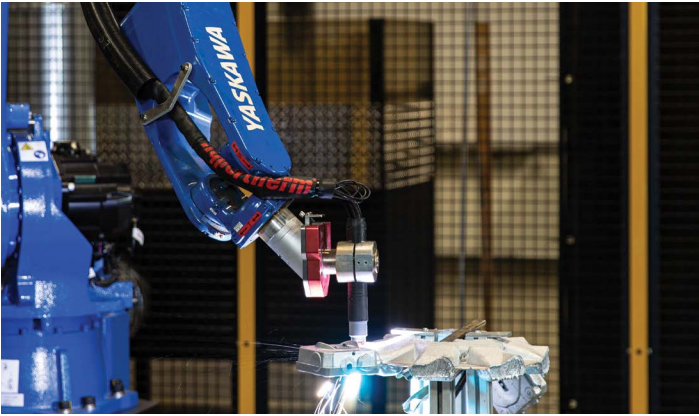


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Plasma platforms

Powermax robotic cutting

Powermax® robotic plasma cutting systems integrated with industrial robots deliver a powerful, flexible solution for automated cutting and gouging.



Key benefits

- High-speed cutting with excellent arc stability
- Compact, lightweight torches for robotic arm compatibility
- Long consumable life with patented cartridge technology
- Versatile for cutting, gouging, and marking across various metals



[LEARN MORE](#)

Powermax cobot cutting

Combining Powermax plasma systems with collaborative robots (cobots) offers a safe, cost-effective automation solution for small to mid-sized shops.



Key benefits

- Safe to operate alongside humans—no cages required
- Easy to program and redeploy for different tasks
- Delivers consistent, high-quality cuts with minimal rework
- Reduces labor strain and increases shop productivity



[LEARN MORE](#)

Powermax 2D cutting

Powermax is the preferred plasma for a variety of light industrial XY cutting systems. Powermax provides the optimal mix of long consumable life, high cut quality, and industry-leading reliability.



Key benefits

- Easy setup and integration with a variety of CNC connections and torch options
- Get optimal results with a wide variety of cut charts for mild steel, stainless, and aluminum
- Dramatically increase productivity with Powermax SYNC on compatible XY cutting systems using HySpeed® techniques







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Product line and application overview



	Powermax30 [®] XP	Powermax30 AIR	Powermax45 SYNC	Powermax65 SYNC	Powermax85 SYNC	Powermax105 SYNC	Powermax125
Recommended cut capacity	10 mm (3/8")	8 mm (5/16")	16 mm (5/8")	20 mm (3/4")	25 mm (1")	32 mm (1-1/4")	38 mm (1-1/2")
Severance cut capacity	16 mm (5/8")	16 mm (5/8")	29 mm (1-1/8")	32 mm (1-1/4")	38 mm (1-1/2")	50 mm (2")	57 mm (2-1/4")
Output range	15-30	15-30	9-45	20-65	25-85	30-105	30-125
Input phase	Single	Single	Single or three	Single or three	Single or three	Three	Three

Application capabilities		Mechanized cutting	•		•	•	•	•	•
		Consumables for portable automation, CNC table and robotic cutting.							
		Drag cutting	•	•	•	•	•	•	•
		Consumables for placing the torch directly on the work piece without a standoff.							
		FineCut[®]	•		•	•	•	•	•
		FineCut [®] consumables for narrow kerf width with minimal dross and heat affected zone.							
		Marking			•*				
		Consumables for scoring, indicating part identification hole or weld locations.							
		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.							
		HyAccess[™]	•			•	•	•	
		HyAccess [™] , extended reach consumables for improved visibility and accessibility when cutting or gouging in confined spaces.							
		FlushCut[™]				•	•	•	•
		FlushCut [™] consumables for cutting closer to base materials as possible without piercing or damaging the workpiece.							

* Mark and cut with the same cartridge

The benefits of cutting with plasma over oxyfuel

Understanding plasma technology

Plasma cuts metal quickly and cleanly

Plasma and its intense heat (up to 39,000° F or 22,000° C) are 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 that's ready to weld in most cases. Most plasma systems are also effective for gouging metal.

Cut or gouge any electrically conductive metal

Whether in a shop, factory, home, or field, plasma systems cut and gouge all metal types and forms. Most models have a handheld or machine torch to fit the application.

Operating a plasma system requires the following:

- 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

“The quality of the cut (Powermax SYNC) is excellent too. It’s very efficient. I find it a lot quicker than using the oxyfuel and the grinder and it is a lot safer.”

Tom Holloway,
TEi, United Kingdom

Why choose plasma over oxyfuel cutting and carbon arc gouging

Advantages of Powermax vs. oxyfuel cutting

Safer

- No flammable gases for operation
- No open flame – a plasma arc extinguishes when detached from a workpiece

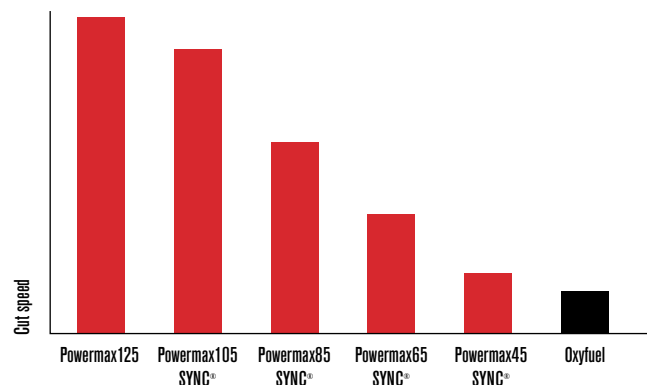
Delivers higher productivity

- Much faster cut speeds up to 38 mm (1-1/2") thick
- No preheating needed
- A cleaner edge with a smaller heat-affected zone (HAZ) requires less grinding of the cut edge

Provides more versatility

Cuts and gouges are made from electrically conductive metal, including stainless steel and aluminum. They are easily used with templates, cuts stacked, painted, or rusted metal.

Cut speed comparison on 12 mm (1/2") mild steel



Powermax vs. carbon arc gouging

Safer

- Less noise up to 5 to 10 decibels
- Less fumes and no carbon dust
- Sparks don't travel as far or burn as long, reducing fire hazards

Provides greater efficiency

- Travel speeds can be up to four times faster
- Less weld preparation time because plasma doesn't leave carbon in the metal
- Gouge on conductive ferrous or non-ferrous metal

Provides more versatility

- Gouge on any electrically conductive metal
- Can be used for cutting and other processes
- Easily automated on a tractor, robot, or cobot

Powermax30 XP

Recommended cut capacity of 10 mm (3/8")

Severance capacity of 16 mm (5/8")

Professional grade



Part of the Powermax® family, the Powermax30 XP is a highly portable two-in-one plasma cutter providing high-power capability for thick metal cutting and detailed, thin metal cutting.

Key business benefits

Simplify operations and boost productivity

Easy-to-use interface and drag-cutting consumables reduce training time and improve cut quality

Minimize operating costs

Up to 10 times longer consumable life compared to competitors decreases operating costs

High uptime and reliability

Robust design and long-lasting consumables ensure system durability and long life

Cut and gouge capacities

Capacity	Thickness	Cut speed
Cutting		
Recommended	10 mm (3/8")	500 mm/min (20 ipm)
	12 mm (1/2")	250 mm/min (10 ipm)
Severance	16 mm (5/8")	125 mm/min (5 ipm)

Torch output*	3.75 kW
	$30 \text{ A} \times 125 \text{ V} \div 1000 \text{ W} = 3.75 \text{ kW}$

*Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Portable and versatile.

Highly portable, the Powermax30 XP handles a wide range of jobs and provides high-power capability for thick metal cutting and FineCut® consumables for detailed, thin metal cutting.

With a dual-voltage design, it can run on a 240 V circuit and, depending on the region, a 120 V circuit.

Unique “two-in-one” design provides high-power capability for thick metal cutting and FineCut consumables for detailed, thin metal cutting.

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Highlighted product features:

Easy to use

- Simplified operations get you cutting quickly and easily
- Small and lightweight, the Powermax30® XP delivers whenever and wherever you need it
- Quickly cut metal grate or rusted metal without retriggering with the continuous pilot arc feature

Versatile

- Plug into any 120 or 240 V circuit (convenient Auto-Voltage™ technology and plug adapters included)
- Two-in-one design for maximum versatility with high power for thicker metals and FineCut consumables for high-quality cuts on thinner metals

Industry-leading reliability

- Powermax plasma cutters are known to last decades in the field, minimizing maintenance and downtime
- Torches are engineered for rugged industrial environments
- Each Powermax component is tested to perform reliably in demanding conditions

Our customers' preferred cutting tool for industries including:

- Automotive repair/restoration
- Metal art and signage
- Property/plant maintenance
- HVAC/mechanical contracting
- Educational/trade schools
- Agricultural/equipment maintenance

Specifications – CSA

Specifications – CE

Specifications – CCC

Input voltages (± 10%)	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 @ 40° C (104° F)	35%, 240 V 20%, 120 V
Open circuit voltage (OCV)	256 VDC
Weight with 4.5 m (15') torch	9.5 kg (21.4 lbs)

CSA – for use in the Americas and Asia, except China.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.

CCC – for use in China.

Dimensions with handles	356 mm (14.0") D; 140 mm (5.5") W; 292 mm (11.5") H
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	113.3 l/min (4 scfm) @ 80 psi (5.5 bar)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	5.5 kW for full 30 A output
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year



Ordering information – CSA

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

Powermax30 XP® power supplies	Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead	
	Handheld	Mechanized
120–240 V CSA handheld standard and carry case, gloves, and shade 5 glasses	088079	
120–240 V CSA standard handheld	088081	
120–240 V CSA mechanized		088178

CSA – for use in the Americas and Asia, except China

Ordering information – CE

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

Powermax30 XP® power supply	Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead	
	Handheld	
120–240 V CE standard		088082
120–240 V CE handheld standard and carry case		088083

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.

Ordering information – CCC

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

Powermax30 XP® power supply	Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead	
	Handheld	
120–240 V CCC standard		088084

CCC – for use in China



Torch consumable parts

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
Mechanized	Machine	30	220673	420148	420118	420137	420211

Electrodes and nozzles are sold in packs of five, as well as combination packs of 2 electrodes and 2 nozzles.

Description	Part number
Standard combo pack	428243
FineCut combo pack	428244

088079 Hand system includes

- Power supply, 4.5 m (15') Duramax™ LT hand torch with standard consumables, 4.5 m (15') work clamp
- 240 V/20 A plug with adapters for 120 V/15 A and 240 V/20 A circuits
- Operator and safety manuals
- Consumable kit with 1 standard nozzle, 1 electrode, 1 FineCut® nozzle and 1 FineCut deflector
- Plastic carry case
- Carrying strap
- Leather gloves
- Shade 5 glasses



Powermax30 AIR

Recommended cut capacity of 8 mm (5/16")

Severance capacity of 16 mm (5/8")

Professional grade



Part of the Powermax® family, the Powermax30 AIR is highly portable, features a built-in air compressor, and enables hand cutting anywhere there's single-phase power.

Key business benefits

Increase application capability

Built-in compressor enables plasma cutting in locations where air is unavailable or air quality is poor

Lower operating costs

Long consumable life and a built-in compressor decrease operating costs

High uptime and reliability

Robust design and long-lasting consumables ensure system durability and long life

Cut capacities

Capacity	Thickness	Cut speed
Cutting		
Recommended	8 mm (5/16")	500 mm/min (20 ipm)
	10 mm (3/8")	250 mm/min (10 ipm)
Severance	16 mm (5/8")	125 mm/min (5 ipm)

Torch output*	2.49 kW
	$30 \text{ A} \times 83 \text{ V} \div 1000 \text{ W} = 2.49 \text{ kW}$

*Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Small size. Big performance.

The smallest and lightest handheld plasma cutter in its class, the Powermax30 AIR includes a built-in air compressor and dual-voltage design. It runs on a 240 V circuit and, depending on the region, a 120 V circuit.

“Because our company provides service in very remote places where access to air compressors is very limited, the portability of the Powermax30 AIR with the internal compressor, makes it ideal for field services.”

Diego Nunes Fernando, BNG Metalmecânica, Brazil

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Highlighted product features:

Easy to use

- Simplified operations get you cutting quickly and easily
- Small and lightweight, the Powermax30® AIR delivers whenever and wherever you need it
- Quickly cut metal grate or rusted metal without retriggering with the continuous pilot arc feature

Versatile

- Plug into any 120 or 240 V circuit (convenient Auto-Voltage™ technology and plug adapters included)
- Two-in-one design for maximum versatility with high power for thicker metals and FineCut® consumables for high-quality cuts on thinner metals

Industry-leading reliability

- Powermax plasma cutters are known to last decades in the field, minimizing maintenance and downtime
- Torches are engineered for rugged industrial environments
- Each Powermax component is tested to perform reliably in demanding conditions

Specifications – CSA

Specifications – CE

Specifications – CCC

Input voltages (± 10%)	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 @ 40° C (104° F)	35%, 240 V 20%, 120 V
Open circuit voltage (OCV)	256 VDC
Weight with 4.5 m (15') torch	9.5 kg (21.4 lbs)



Ordering information – CSA

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

Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead

Powermax30 AIR® power supply

Handheld

120-240 V CSA standard power supply

088096

CSA – for use in the Americas and Asia, except China

Ordering information – CE

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

Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead

Powermax30 AIR® power supply

Handheld

120-240 V CE standard power supply

088098

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.

Ordering information – CCC

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

Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead

Powermax30 AIR® power supply

Handheld

120-240 V CCC standard power supply

088103

CCC – for use in China

Torch consumable parts

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

Electrodes and nozzles are sold in packs of five, as well as combination packs of 2 electrodes and 2 nozzles (part number 428350)



Powermax SYNC series

Featuring a single-piece cartridge consumable platform and automated process setup

The newest edition to the Powermax® family, Powermax SYNC features advanced torch communication for automated setup and patented single-piece cartridges for hand cutting, mechanized, or robotic cutting or gouging.



Key business benefits

Simplicity

- So easy to use, new operators perform like professionals in minutes
- Advanced torch communication for automated setup improves cut quality
- Easy to set up for mechanized usage with optional CNC interface and FastConnect™ torch connection

Profitability

- Cuts with the power of higher-amperage competitors
- HySpeed® enabled technology for cutting can nest up to 3 times faster on .5 mm to 6 mm (26 GA to 3/16") thick steel when used on compatible tables and CAM software like ProNest® and ProNest LT
- Provides up to 5 times longer consumable life than competitors

Versatility

- Excel at your job and expand your cutting and gouging application capabilities with the widest variety of Powermax plasma cartridge and torch options available
- Specialty applications such as gouging with FlushCut™ and FineCut® are easier to access with cartridge and automated set-up

Reliability

- Powermax plasma cutters are known to last decades in the field, minimizing maintenance and downtime
- SmartSYNC® torches are engineered for rugged industrial environments
- Each Powermax component is tested to perform reliably in demanding conditions

Powermax SYNC. Easy to use. Versatile. Reliable.

For metal workers who want the most versatile system available to cut, mark, and gouge, Hypertherm® Powermax SYNC® delivers the best return on investment. Powermax SYNC features built-in intelligence and a patented single-piece cartridge that delivers up to 5 times longer consumable life and greater cutting power than higher-amperage competitors.

The dramatically simplified consumable platform and advanced torch communication for automated setup make our Powermax SYNC professional air plasma systems the smart choice for any cutting, marking, or gouging application.



Powermax SYNC cartridges for Mechanized Cutting, Gouging, Drag Cutting, FlushCut, and HyAccess. Color coded by process to eliminate part mix-ups. See page 33 for a complete list of cartridges and part numbers.

Powermax45 SYNC | 65 SYNC | 85 SYNC | 105 SYNC



INTRODUCING Powermax45 SYNC

Easy to use. Versatile. Reliable.

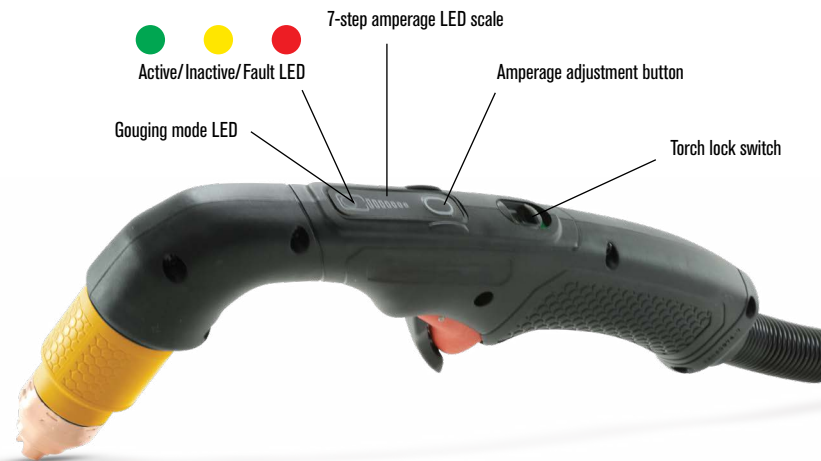
For metal workers who want the most versatile system available to gouge, cut, and mark, Powermax45 SYNC delivers the best return on investment with a patented single-piece cartridge, up to 5 times longer consumable life, and greater cutting power than higher-amperage competitors.

Powermax SYNC technology and smart factory

Whether you are at the beginning or in more advanced stages of connected manufacturing, Powermax SYNC® plasma cutters can help expand your capabilities and support your goals. The cartridge and system performance data can help you make informed decisions to improve your cutting and gouging operation. The data is accessible via our Cartridge smartphone app by scanning individual cartridges, viewed on the system display and accessible via a connected, compatible CNC such as Hypertherm EdgeConnect.

“We’re very impressed with the machine's cut quality and love the cartridges. The cartridge life span far exceeds our older machine’s consumables, and the cartridge takes seconds to replace.”

SALT CREEK FAB
Customer metal fabricators



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Powermax45 SYNC

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	16 mm (5/8")	500 mm/min (20 ipm)
Severance (hand cutting)	29 mm (1-1/8")	125 mm/min (5 ipm)
Pierce*	12 mm (1/2")	
*Pierce rating for handheld use or with automatic torch height control		
Gouge capacity	Metal removal rate	Groove profile
Typical gouge	3.4 kg (7.5 lbs) per hour	3.2 mm (.12") D x 6.8 mm (.26") W

Torch output*	6.9 kW
	45 A x 155 V ÷ 1000 W = 6.9 kW

*Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Our customers' preferred cutting tool for industries including:

- Job shops/fabricators
- Property/plant maintenance
- HVAC/mechanical contracting
- Educational/trade schools
- Agricultural/equipment maintenance

“If you’re considering buying a plasma cutting system, you get what you pay for and this right here (Powermax45 SYNC®) is worth every penny.”

Rae Ripple, Artist, welder, published author

Specifications – CSA

Input voltages (± 10%)	200–240 V, 1-PH, 50/60 Hz
	480 V, 3-PH, 50/60 Hz, 3-PH, 50/60 Hz
Input current @ 6.9 kW	200–240 V, 1-PH, 39/32 A
	480 V, 3-PH, 10 A
Output current	9–45 A
Rated output voltage	155 VDC
Duty cycle @ 40° C (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
Open circuit voltage (OCV)	275 VDC 200–240 V
	275 VDC 480 V
Weight with 6.1 m (20') torch	14 kg (31 lbs.)

CSA – for use in the Americas and Asia, except China

Specifications – CE/CCC

Input voltages (± 10%)	230 V, 1-PH, 50/60 Hz
	400 V, 3-PH, 50/60 Hz
Input current @ 6.9 kW	230 V, 1-PH, 33 A
	400 V, 3-PH, 10 A
Output current	9–45 A
Rated output voltage	155 VDC
Duty cycle @ 40° C (104° F)	50% @ 45 A, 230 V, 1-PH
	60% @ 41 A, 230 V, 1-PH
	100% @ 32 A, 230 V, 1-PH
	50% @ 45 A, 400 V, 3-PH
	60% @ 41 A, 400 V, 3-PH
Open circuit voltage (OCV)	275 VDC 200–240 V
	265 VDC 400 V
Weight with 6.1 m (20') torch	15 kg (33 lbs.)

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.

Dimensions with handles	442 mm (17.4") D; 173 mm (6.8") W; 357 mm (14.1") H
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)
Recommended gas inlet flow rate/pressure	188 l/min @ 5.9 bar (400 scfh 6.7 scfm @ 90 psi)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	12.5 kVA (10 kW) for full 45 A output
Electrical efficiency	90%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard system configurations, which include a power supply, torch or torches, work cable, product information, and 1–2 cartridges.

CSA – for use in the Americas and Asia, except China			75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length			6.1 m (20')	15.2 m (50')	6.1 m (20') and 7.6m (25')	7.6 m (25')		15.2 m (50')	7.6m (25') and 6.1 m (20')
✓ = With remote pendant						✓			✓
Powermax45 SYNC® power supplies			Handheld			Mechanized			
200–240 V CSA standard power supply			088560	088561	088564				
200–240 V CSA power supply with CPC port and voltage divider			088562	088563		088580	088582	088581	088583
200–240 V CSA power supply with CPC port, voltage divider board, and serial port						088584		088588	

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax45 SYNC 230V CSA	088570	088571	088572
Powermax45 SYNC 480V CSA	088573		

Ordering information – CE/CCC

Below are the standard system configurations, which include a power supply, torch or torches, work cable, product information, and 1–2 cartridges.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.			75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length			6.1 m (20')	15.2 m (50')	6.1 m (20') and 7.6m (25')	7.6 m (25')		15.2 m (50')	7.6m (25') and 6.1 m (20')
✓ = With remote pendant						✓			✓
Powermax45 SYNC® power supplies			Handheld			Mechanized			
400 V CE/CCC standard power supply			088565	088566					
400 V CE/CCC power supply with CPC port and voltage divider			088567			088585		088586	
230 V CE/CCC standard power supply			088568						
230 V CE/CCC power supply with CPC port and voltage divider			088569			088587			

Custom configurations – CE/CCC

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax45 SYNC 400 V CE/CCC	088574	088575	088576
Powermax45 SYNC 230 V CE/CCC	088577	088578	088579

Cable options

Cable length	Work cables	Control cables				
	Hand clamp	Remote pendant	CNC, spade connector, divided voltage	CNC, spade connector, no divided voltage	RS-485 Serial comm, unterminated	RS-485 Serial comm, D-sub
7.6 m (25')	223595	128650	228350	023206	223236	223239
15.2 m (50')	223596	128651	228351	023279	223237	223240
22.8 m (75')	223127	128652				

Powermax cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925	428932	428933	428895*

Specialty cartridge options

Amps	FlushCut	FineCut®		HyAccess™		
		Handheld	Mechanized	Drag cutting	Gouging	Mechanized
30–45		428928	428926			

Powermax65 SYNC

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	20 mm (3/4")	500 mm/min (20 ipm)
	25 mm (1")	250 mm/min (10 ipm)
Severance (hand cutting)	32 mm (1-1/4")	125 mm/min (5 ipm)
Pierce*	16 mm (5/8")	
*Pierce rating for handheld use or with automatic torch height control		
Gouge capacity	Metal removal rate	Groove profile
Typical gouge	4.0 kg (8.8 lbs) per hour	2.9 mm (.11") D x 6.4 mm (.25") W

Torch output*	9 kW
	65 A x 139 V ÷ 1000 W = 9.0 kW

*Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Our customers' preferred cutting tool for industries including:

- Job shops/fabricators
- Truck and trailer fabrication
- HVAC/mechanical contracting
- Educational/trade schools
- Agricultural/equipment maintenance

Specifications – CSA

Input voltages (± 10%)	200–480 V, 1-PH, 50/60 Hz
	200–600 V, 3-PH, 50/60 Hz
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 @ 40° C (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
Weight with 7.6 m (25') torch	27.8 kg (61.7 lbs.)

CSA – for use in the Americas and Asia, except China

Specifications – CE/CCC

Input voltages (± 10%)	380/400 V, 3-PH, 50–60 Hz
Input current @ 6.9 kW	380/400 V, 15.5/15 A
Output current	20–65 A
Rated output voltage	139 VDC
Duty cycle @ 40° C (104° F)	50% @ 65 A, 380–400 V, 3-PH
	100% @ 46 A, 380–400 V, 3-PH
Open circuit voltage (OCV)	295 VDC
	270 VDC
Weight with 7.6 m (25') torch	24.1 kg (52.7 lbs.)

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.

Dimensions with handles	483 mm D; 233 mm W; 430 mm H (19" D; 9.2" W; 17" H)
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 210 l/min @ 5.9 bar, (450 scfh, 7.5 scfm @ 85 psi)
	Gouging: 210 l/min @ 4.8 bar, (450 scfh, 7.5 scfm @ 70 psi)
Electrical efficiency	91.2%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CSA – for use in the Americas and Asia, except China				75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length				7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	10.7 m/7.6 m (35'/25')
✓ = With remote pendant							✓		✓	✓
Powermax65 SYNC® power supplies				Handheld			Mechanized			
200–480 V CSA standard power supply				083343	083344	083347				
200–480 V CSA power supply with CPC port and voltage divider				083345	083346		083348	083349	083361	083350 083351
200–480 V CSA power supply with CPC port, voltage divider, and serial port							083352		083375*	083376*

* with ring terminated work lead

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply option	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax65 SYNC 200–600 V	083371	083372	083373

Ordering information – CE/CCC

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.				75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length				7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	10.7 m/7.6 m (35'/25')
✓ = With remote pendant							✓		✓	✓
Powermax65 SYNC® power supplies				Handheld			Mechanized			
380–400 V CE/CCC standard power supply				083356	083357	083360				
380–400 V CE/CCC power supply with CPC port and voltage divider				083358	083359		083362	083327	083363	083364 083365
380–400 V CE/CCC power supply with CPC port, voltage divider, and serial port								083366	083377	083367

Custom configurations – CE/CCC

Select power supply, torch, work cable, cartridge, and other components.

Power supply option	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax65 SYNC 380–400 V CE/CCC	083368	083369	083370

Work leads			
	Hand clamp	C-clamp	Ring terminal
7.6 m (25')	223125	223194	223200
15.2 m (50')	223126	223195	223201
22.8 m (75')	223127	223196	223202

Cable options

Control cables						
Cable length	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
7.6 m (25')	128650	228350	023206	223048	223236	223239
15.2 m (50')	128651	228351	023279	123896	223237	223240
22.8 m (75')	128652					

Powermax cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925	428932	428933	428895*
65	428931	428930			

Specialty cartridge options

Amps	FlushCut	FineCut®		HyAccess™		
		Handheld	Mechanized	Drag cutting	Gouging	Mechanized
30–45		428928	428926			
65	428952			428984	428987	528079

*Kit includes three 420580 ohmic ring clips.

Powermax85 SYNC

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	25 mm (1")	500 mm/min (20 ipm)
	32 mm (1-1/4")	250 mm/min (10 ipm)
Severance (hand cutting)	38 mm (1-1/2")	125 mm/min (5 ipm)
Pierce*	20 mm (3/4")	
*Pierce rating for handheld use or with automatic torch height control		
Gouge capacity	Metal removal rate	Groove profile
Typical gouge	8.2 kg (18.2 lbs) per hour	3.2 mm (.12") D x 6.8 mm (.26") W

Torch output*	12.2 kW
	85 A x 143 V ÷ 1000 W = 12.2 kW

*Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Our customers' preferred cutting tool for industries including:

- Job shops and general fabrication
- Truck and trailer fabrication
- Tank and vessel fabrication
- Railyard maintenance and railcar fabrication
- Demolition and metal salvage
- Agricultural/equipment maintenance

Specifications – CSA

Input voltages (± 10%)	200–480 V, 1-PH, 50/60 Hz 200–600 V, 3-PH, 50/60 Hz
Input current @ 9 kW	200/208/240/480, 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 @ 40° C (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
Weight with 7.6 m (25') torch	32 kg (67 lbs.)

CSA – for use in the Americas and Asia, except China

Specifications – CE/CCC

Input voltages (± 10%)	400 V, 3-PH, 50–60 Hz
Input current @ 6.9 kW	380/400 V, 3-PH 20.5/19.5 A
Output current	20–65 A
Rated output voltage	143 VDC
Duty cycle @ 40° C (104° F)	60% @ 85 A, 380–400 V, 3-PH 100% @ 66 A, 380–400 V, 3-PH
Open circuit voltage (OCV)	270 VDC
Weight with 7.6 m (25') torch	23.5 kg (52 lbs.)

CE – for use in Europe, Australia & New Zealand – RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.

Dimensions with handles	483 mm D; 233 mm W; 430 mm H (19" D; 9.2" W; 17" H)
Gas supply	Cutting: air (clean, dry and oil-free), nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 210 l/min @ 5.9 bar (450 scfh, 7.5 scfm @ 85 psi) Gouging: 210 l/min @ 4.8 bar (450 scfh, 7.5 scfm @ 70 psi)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	20 kW or 25 kVA for full 85 A output
Electrical efficiency	91.9%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CSA – for use in the Americas and Asia, except China		75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length		7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	10.7 m/7.6 m (35'/25')
✓ = With remote pendant					✓		✓	✓
Powermax85 SYNC® power supplies		Handheld			Mechanized			

200–600 V CSA power supply	087183	087184	087187					
200–600 V CSA power supply with CPC port and voltage divider	087185	087186		087207	087189		087208	087190 083351
200–600 V CSA power supply with CPC port, voltage divider, and serial port				087192		087218 *		087219 *

* with ring terminated work lead

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax85 SYNC 200–600 V	087213	087214	087215

Ordering information – CE/CCC

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CE – for use in Europe, Australia & New Zealand – RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.		75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length		7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	10.7 m/7.6 m (35'/25')
✓ = With remote pendant					✓		✓	✓
Powermax85 SYNC® power supplies		Handheld			Mechanized			

400 V CE/CCC standard power supply	087196	087197	087200					
400 V CE/CCC power supply with CPC port and voltage divider	087198	087199		087201	087202		087203	087204
400 V CE/CCC power supply with CPC port, voltage divider, and serial port					087205	087220	087206	

Custom configurations – CE/CCC

Select power supply, torch, work cable, cartridge, and other components.

	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax85 SYNC 380–400 V CE/CCC	087210	087211	087212

Work leads			
	Hand clamp	C-clamp	Ring terminal
7.6 m (25')	223035	223203	223209
15.2 m (50')	223034	223204	223210
22.8 m (75')	223033	223205	223211

Cable options

Control cables						
Cable length	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
7.6 m (25')	128650	228350	023206	223048	223236	223239
15.2 m (50')	128651	228351	023279	123896	223237	223240
22.8 m (75')	128652					

Powermax cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925	428932	428933	428895*
65	428931	428930			
85	428935	428934			

Specialty cartridge options

Amps	FlushCut	FineCut®		HyAccess™		
		Handheld	Mechanized	Drag cutting	Gouging	Mechanized
30–45		428928	428926			
65	428952			428984	428987	528079
85	428953					

*Kit includes three 420580 ohmic ring clips.

Powermax105 SYNC

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	32 mm (1-1/4")	500 mm/min (20 ipm)
	38 mm (1-1/2")	250 mm/min (10 ipm)
Severance (hand cutting)	50 mm (2")	125 mm/min (5 ipm)
Pierce*	22 mm (7/8")	
*Pierce rating for handheld use or with automatic torch height control		
Gouge capacity	Metal removal rate	Groove profile
Typical gouge	8.6 kg (19.1 lbs.) per hour	6.6 mm D x 6.2 mm W (.26 D x .24 W)

Torch output**	16.8 kW
	105 A x 160 V ÷ 1000 W = 16.8 kW

**Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Our customers' preferred cutting tool for industries including:

- Shipbuilding/ship repair
- Truck and trailer fabrication
- Tank and vessel manufacturing
- Railyard maintenance and railcar fabrication
- Demolition and metal salvage
- Agricultural/equipment maintenance

Specifications – CSA

Input voltages (± 10%)	200–600 V, 3-PH, 50/60 Hz
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 @ 40° C (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
Weight with 7.6 m (25') torch	230–400 V: 42.7 kg (94 lbs.)

CSA – for use in the Americas and Asia, except China

Specifications – CE/CCC

Input voltages (± 10%)	200–600 V, 3-PH, 50/60 Hz
Input current @ 16.8 kW	380–400 V, 3-PH, 50–60 Hz
Output current	20–65 A
Rated output voltage	160 VDC
Duty cycle @ 40° C (104° F)	70% @ 105 A, 240 V, 3-PH
	80% @ 105 A, 400 V, 3-PH
	100% @ 94 A, 400 V, 3-PH
	100% @ 88 A, 230 V, 3-PH
Open circuit voltage (OCV)	288 VDC
Weight with 7.6 m (25') torch	230–400 V: 42.7 kg (94 lbs.)
	39.4 kg (87 lbs.)

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.

Dimensions with handles	592 mm D; 274 mm W; 508 mm H (23.3" D; 10.8" W; 20.0" H)
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 260 l/min @ 6.2 bar (550 scfh, 9.1 scfm @ 90 psi)
	Gouging: 260 l/min @ 4.8 bar (550 scfh, 9.1 scfm @ 70 psi)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	30 kW or 37.5 kVA for full 105 A output
Electrical efficiency	91%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CSA – for use in the Americas and Asia, except China				75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length				7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	10.7 m/7.6 m (35'/25')
✓ = With remote pendant							✓		✓	✓
Powermax105 SYNC® power supplies				Handheld			Mechanized			
200–600 V CSA standard power supply				059625	059626	059634				
200–600 V CSA power supply with CPC port and voltage divider				059627	059628		059636	059637	059639	059687
200–600 V CSA power supply with CPC port, voltage divider, and serial port								059684	059762*	059763

* with ring terminated work lead

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax105 SYNC 200–600 V	059704	059705	059706

Ordering information – CE/CCC

Below are the standard system configurations, which include a power supply, torch or torches, work cable, 3–4 cartridges, and product information. Some configurations may include additional items such as a remote pendant and communication cables.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China.				75° hand torch		75° and 15° hand torch	180° full-length machine torch		180° full-length machine torch and 75° hand torch	
Torch lead length				7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	10.7 m (35')	15.2 m (50')	
a= With remote pendant							✓		✓	
Powermax105 SYNC® power supplies				Handheld			Mechanized			
380–400 V CE standard power supply				059690	059691	059692				
380–400 V CE power supply with CPC port and voltage divider				059697	059680		059694	059693	059695	059681
380–400 V CE power supply with CPC port, voltage divider, and serial port								059697	059765	059698
230–400 V CE/CCC standard power supply				059679	059680			059682		059683
230–400 V CE/CCC power supply with CPC port and voltage divider								059682		059683
230–400 V CE/CCC power supply with CPC port, voltage divider, and serial port								059712	059764	

Custom configurations – CE/CCC

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port
380–400 V CE/CCC	059708	059709	059710
230–400 V CE/CCC	059701	059702	059703

Work leads			
	Hand clamp	C-clamp	Ring terminal
7.6 m (25')	223035	223203	223209
15.2 m (50')	223034	223204	223210
22.8 m (75')	223033	223205	223211

Cable options

Control cables						
Cable length	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
7.6 m (25')	128650	228350	023206	223048	223236	223239
15.2 m (50')	128651	228351	023279	123896	223237	223240
22.8 m (75')	128652					

Powermax cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925	428932	428933	428895*
65	428931	428930			
85	428935	428934			
105	428937	428936	428938	428939	

Specialty cartridge options

Amps	FlushCut	FineCut®		HyAccess™		
		Handheld	Mechanized	Drag cutting	Gouging	Mechanized
30–45		428928	428926			
65	428952			428984	428987	528079
85	428953					

*Kit includes three 420580 ohmic ring clips.

Powermax SYNC® torch options

Torch type	System	Torch style
SmartSYNC	Powermax45 SYNC/65 SYNC/85 SYNC /105 SYNC	 <p>Hand</p>  <p>Long</p>  <p>Machine</p>  <p>Robotic</p>

Torch options

	Hand torches		Long torches				Machine torches	Robotic/Mini			
	75°	15°	0.6 m (2'), 45°	0.6 m (2'), 90°	1.2 m (4'), 45°	1.2 m (4'), 90°	180°	180°	90°	45°	
4.5 m (15')								059733			
7.6 m (25')	059726	059723			528114		059719	059734	059731	059729	
10.7 m (35')							059720				
15.2 m (50')	059727	059724	528116	528117	528118	528119	059721	059735	059732	059730	
22.8 m (75')	059728	059725					059722		059767	059766	
30 m (100')	059770							059734			

Powermax125

Recommended cut capacity of 38 mm (1-1/2")

Severance capacity of 57 mm (2-1/4")

Professional grade



Part of the Powermax® family, the Powermax125 features a 100% duty cycle for the most demanding hand cutting, mechanized cutting, robotic cutting, and gouging.

Key business benefits

Boost productivity

Finish jobs faster with cut speeds five times greater than oxyfuel on 12 mm (1/2") mild steel

Minimize operating costs

Consumable life up to four times longer than other systems in this amperage range

Reduce secondary operations

Superior cut and gouge quality lets you spend less time grinding and preparing edges

Cut and gouge capacities

Cut capacity	Thickness	Cut speed
Recommended	38 mm (1-1/2")	457 mm/min (18 ipm)
	44 mm (1-3/4")	250 mm/min (10 ipm)
Severance (hand cutting)	57 mm (2-1/4")	125 mm/min (5 ipm)
Pierce*	25 mm (1")	

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

Gouge capacity	Metal removal rate	Groove profile
Typical gouge	12.52 kg/hr (27.6 lbs/hr)	4.3-7.9 mm D x 6.1-9.9 mm W (0.17-0.31" D x 0.24-0.39" W)

Torch output**	21.9 kW
	$125 \text{ A} \times 175 \text{ V} \div 1000 \text{ W} = 21.9 \text{ kW}$

**Higher output voltage at the torch plus efficiently designed consumables result in a faster, cleaner cut.

Maximum power and performance.

The Powermax125 cuts thick metals fast and makes short work of your toughest cutting and gouging jobs. It offers a 100% duty cycle for maximum operation time, making it the preferred system for many mechanized or robotic cutting jobs. Smart Sense™ technology automatically adjusts the gas pressure so you can focus on the job and not the setup.

Make short work of your toughest cutting and gouging jobs with the Powermax125.

**THE BEST
INVESTMENT
IS IN YOUR
POWER**

Our customers' preferred cutting tool for industries including:

- Shipbuilding/ship repair
- Truck and trailer fabrication
- Tank and vessel manufacturing
- Railyard maintenance and railcar fabrication
- Demolition and metal salvage
- Agricultural/equipment maintenance

Highlighted product features:

Easy to use

- No need to change the air pressure – Smart Sense™ technology ensures it's correctly set
- Drag cut at full output with a patented shield that reduces dross buildup for smoother cutting
- Superior cut and gouge quality lets you spend less time on grinding and edge preparation
- Electrode end-of-life detection protects the torch and workpiece from damage by automatically stopping power when the electrode is overused
- 100% duty cycle maximizes your operating time

Low operating costs

- Eleven Duramax® Hyamp™ torch styles provide versatility for hand cutting, portable automation, X-Y table cutting, extended reach cutting, and robotic cutting
- Six types of consumables for drag cutting, fine feature cutting, flush cutting, mechanized cutting, plus maximum control and removal gouging

Industry-leading reliability

- Powermax plasma cutters are known to last decades in the field, minimizing maintenance and downtime
- Power supplies and torches are engineered for rugged industrial environments
- Each Powermax component is tested to perform reliably in demanding conditions
- SpringStart™ technology ensures consistent starting and a more reliable torch

Specifications – CSA

Input voltages (± 10%)	480/600 V, 3-PH, 50/60 Hz
Input current @ 12.2 kW	480/600 V, 31/24 A
Output current	30–125 A
Rated output voltage	175 VDC
Duty cycle @ 40° C (104° F)	100% @ 125 A, 480/600 V, 3-PH
Open circuit voltage (OCV)	320 VDC
480 V 47.9 kg (105.7 lbs)	480 V 47.9 kg (105.7 lbs)
	600 V 47.5 kg (104.7 lbs)

CSA – for use in the Americas and Asia, except China

Specifications – CE

Input voltages (± 10%)	400 V, 3-PH, 50–60 Hz
Input current @ 12.2 kW	380 V, 3-PH, 38 A 400 V, 3-PH, 36 A
Output current	30–125 A
Rated output voltage	175 VDC
Duty cycle @ 40° C (104° F)	100% @ 125 A, 380/400 V, 3-PH
Open circuit voltage (OCV)	305 VDC
Weight with 7.6 m (25') torch	380 V 45.2 kg 400 V 48.9 kg

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.

Specifications – CCC

Input voltages (± 10%)	380 V, 3-PH, 50/60 Hz
Input current @ 12.2 kW	380 V, 3-PH, 38 A 400 V, 3-PH, 36 A
Output current	30–125 A
Rated output voltage	175 VDC
Duty cycle @ 40° C (104° F)	100% @ 125 A, 380/400 V, 3-PH
Open circuit voltage (OCV)	290 VDC
Weight with 7.6 m (25') torch	380 V 45.2 kg 400 V 48.9 kg

CCC – for use in China.

Dimensions with handles	483 mm D; 233 mm W; 430 mm H (19" D; 9.2" W; 17" H)
Gas supply	Clean, dry, oil-free air or nitrogen
Recommended gas inlet flow rate/pressure	Cutting: 260 l/min (550 scfh) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh) @ 4.1 bar (60 psi)
Input power cable length	3 m (10')
Power supply type	Inverter – IGBT
Engine drive requirement	40 kW or 50 kVA for full 125 A output
Electrical efficiency	91%–92%
Recyclability	100%
Warranty	Power supply: 6-year, Torch: 1-year

Ordering information – CSA

Below are the standard systems configurations, which include a power supply, torch or torches, work cable, and consumable kit.

CSA – for use in the Americas and Asia, except China	85° hand torch		85° and 15° hand torch		180° full-length machine torch		180° full-length machine torch and 75° hand torch		
	Torch lead length	7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	7.6 m (25') with I/O cables	15.2 m (50')	15.2 m (50') with I/O cables	15.2 m/7.6 m (50'/25')
✓ = With remote pendant					✓		✓		✓
Powermax125® power supplies	Handheld				Mechanized				
480 V CSA power supply with CPC port and voltage divider	059536	059537	059538	059569	059539			059540	059541
600 V CSA power supply with CPC port and voltage divider	059546	059547	059555	059570	059552			059553	059554
480 V CSA power supply with CPC port, voltage divider, and serial port					059542	059544		059543	059545
600 V CSA power supply with CPC port, voltage divider, and serial port					059550	059548		059551	059549

Custom configurations – CSA

Select power supply, torch, work cable, cartridge, and other components.

Power supply options	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax125 480 V	059488	059489
Powermax125 600 V	059509	059510

Ordering information – CE

Below are the standard systems configurations, which include a power supply, torch or torches, work cable, and consumable kit.

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.	75° hand torch		75° and 15° hand torch		180° full-length machine torch		180° full-length machine torch and 75° hand torch		
	Torch lead length	7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	7.6 m (25') with I/O cables	15.2 m (50')	15.2 m (50') with I/O cables	15.2m/7.6 m (50'/25')
✓ = With remote pendant					✓		✓		✓
Powermax125® power supplies	Handheld				Mechanized				
400 V CE power supply with CPC port and voltage divider	059526	059527	059528	059572	059530			059531	059529
400 V CE power supply with CPC port, voltage divider, and serial port						059532	059534	059533	059535

Custom configurations – CE

Select power supply, torch, work cable, cartridge, and other components.

	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax125® 400 V CE	059486	059487

Ordering information – CCC

Below are the standard systems configurations, which include a power supply, torch or torches, work cable, and consumable kit.


CCC – for use in China.	75° hand torch		75° and 15° hand torch		180° full-length machine torch		180° full-length machine torch and 75° hand torch		
	Torch lead length	7.6 m (25')	15.2 m (50')	7.6 m (25')	7.6 m (25')	7.6 m (25') with I/O cables	15.2 m (50')	15.2 m (50') with I/O cables	15.2m/7.6 m (50'/25')
✓ = With remote pendant					✓		✓		✓
Powermax125® power supplies	Handheld				Mechanized				
380 V CCC power supply with CPC port and voltage divider	059556	059557			059558	059583		059584	
380 V CCC power supply with CPC port, voltage divider, and serial port						059560		059561	

Custom configurations – CE

Select power supply, torch, work cable, cartridge, and other components.

	With CPC port and voltage divider	With CPC port, voltage divider and serial port
Powermax125® 380 V CCC	059490	059491

Powermax125® torch options

Torch type	System	Torch style
Duramax Hyamp™	Powermax125	 <p>Hand</p>  <p>Long</p>  <p>Machine</p>  <p>Robotic</p>

Note: Duramax Hyamp torches can also be used with the Powermax45 XP/65/85/105 power supplies.

Torch options

Cable length	Hand torches		Machine torches		Robotic torches			Long torches					
	85°	15°	180°	Mini 180°	45°	90°	180°	0.6 m (2'), 45°	0.6 m (2'), 90°	1.2 m (4'), 45°	1.2 m (4'), 90°	1.8 m (6'), 90°	1.8 m (6'), 45°
4.5 m (15')			059519	059514									
7.6 m (25')	059492	059495	059520	059515	059564	059565	059566	059562	059563	059567	059568	059623	059758
10.7 m (35')			059521	059516									
15.2 m (50')	059493	059496	059522	059517	059670	059671	059672	059579	059580	059581	059582	059624	059759
22.8 m (75')	059494	059497	059523										
45.7 m (150')*	059665	059664		059666				059667		059667	059668		

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

Cable options

Control cables						
Cable length	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
7.6 m (25')	128650	228350	023206	223048	223236	223239
15.2 m (50')	128651	228351	023279	123896	223237	223240
22.8 m (75')	128652					

Work leads			
	Hand clamp	C-clamp	Ring terminal
7.6 m (25')	223035	223203	223209
15.2 m (50')	223034	223204	223210
22.8 m (75')	223033	223205	223211



Torch consumable parts

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

Consumable type	Torch type	Amperage	Nozzle	Shield/Deflector	Retaining cap	Swirl ring	Electrode
Drag-cutting	Hand	45	420158	420172	220977	220997	220971
		65	420169	420172			
		125	220975	420000			
Mechanized	Machine	45	420158	420168	220977 or 420156 ¹	220997	220971
		65	420169	420168			
		125/105	220975	220976			
FineCut®	Hand	45	420151	420152	220977 or 420156 ¹	420159	220971
	Machine					220997	
Max removal gouging	Hand/Machine	30-125	420001	420112	220977	220997	220971
Max control gouging	Hand/Machine	30-125	420001	420509	220977	220997	220971

¹ Ohmic retaining cap

Torch adapter and the Powermax cartridge platform

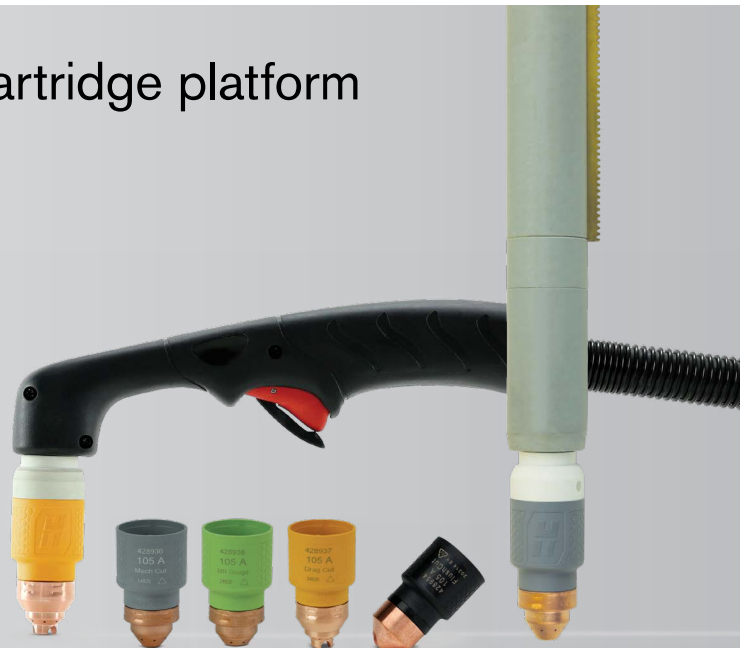
For Powermax45® XP/65/85/105 systems

Compatibility

The torch adapter allows for conversion to the cartridge consumable platform if you have the following systems and torch types.

System	Torch type	Part number
Powermax45 XP Powermax65 Powermax85 Powermax105	Duramax® Lock hand, and mechanized Duramax hand, mechanized and robotic	428951

- Not recommended for use on Duramax retrofit torches for Powermax1000/1250/1650
- Not compatible with Duramax Hyamp™ standard or long style torches
- The cartridge consumable platform is standard for the Powermax45 SYNC/ 65 SYNC/85 SYNC/105 SYNC systems with SmartSYNC® torches (no adapter required)



Upgrade to the revolutionary Powermax cartridge consumable platform with the installation of a torch adapter.

Accessories

Personal protective equipment



Dual face shield
127239 Shade 6
127103 Shade 8



Leather cutting gloves
127169



Gouging heat shield
128658 T45v; T60/80/100
428347 Duramax and SmartSYNC®
428348 Duramax Hyamp



Cutting goggles
ANSI Z87.1, CSA Z94.3, CE



Adjustable eye shades
127416 Shade 5



Flip-up eye shades
ANSI Z87.1, CSA Z94.3, CE
017033 Shade 5

Torch accessories



Hyamp torch adapter
428495



Mechanized torch holder
120595 1-3/8" Dia
120596 1-3/4" Dia



Robotic torch holder
228806



Torch teach tools

The torch teach tools enable system operators to program the robot's cutting path, while visually verifying the torch will not touch the workpiece while cutting.



- 429054 for SmartSYNC® robotic torches
- 429057 for SmartSYNC® HyAccess robotic torches
- 229456 for Duramax robotic torches
- 229832 for Duramax Hyamp robotic torches

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
- 428719 Oil removal air filter kit



Leather torch sheathing

- 024877 Black leather 7.6 m (25')



Wheel/gantry kits

- 229370 Powermax65/85, 65 SYNC /85 SYNC wheel kit
- 229569 Powermax65/85, 65 SYNC /85 SYNC gantry kit
- 229467 Powermax105/105 SYNC/125, wheel kit
- 229570 Powermax/105 SYNC/125, gantry kit



System dust covers

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



Remote trigger pendant

- 128650 7.6 m (25')
- 128651 15.2 m (50')
- 128652 22.8 m (75')
- 428755 45.7 m (150')



Cartridge reader

The cartridge reader works with the Powermax SYNC cartridge reader app to provide a simple process for reviewing data stored in Powermax cartridges.

528083

Cutting guides



Circle cutting guide

- 127102 Basic Duramax®, Duramax LT, AIR, T30
- 027668 Deluxe Duramax, Duramax LT, AIR, T30
- 017053 Duramax Hyamp™
- 027669 Deluxe SmartSYNC®
- 017065 Basic SmartSYNC



Angle cutting guide

017041



Magnetic straight edge

017042



Bevel cutting guide

- 017059 Standard
- 017058 Duramax Hyamp
- 017066 SmartSYNC



Magnetic block 2-pack

017043



Torch alignment guide

Designed for setting up a machine torch to produce high quality bevel cuts at accurate angles using a tractor.

528077

Consumable kits

- Powermax® Essential consumable kits are 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 are economical for high volume use of select consumables



Essential consumable kits for Powermax

Powermax system	Handheld
Powermax30 AIR	851462
Powermax30 XP	851479
Powermax45 XP	851510
Powermax65	851465
Powermax85	851468
Powermax105	851471
Powermax125	851474



Duramax® consumable bulk kits

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



Dual electrode/nozzle packs

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



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	428746	15-45 A
Powermax65		
Powermax85		
Powermax105	428647	85-105 A
Powermax125	428713	85-125 A



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	Combination Cut/Gouging	428414	15-65 A
Powermax65	Starter kit - Cutting	428445	
Powermax85	Starter kit - Gouging	428446	



Powermax® cartridge options

Amps	Drag cutting	Mechanized/standoff cutting	Max removal gouging	Max control gouging	Ohmic ring kit
45	428927	428925	428932	428933	428895*
65	428931	428930			
85	428935	428934			
105	428937	428936	428938	428939	

*Kit includes three 420580 ohmic ring clips.



Specialty cartridge options

	FlushCut	FineCut®		HyAccess™		
		Handheld	Mechanized	Drag cutting	Gouging	Mechanized
30-45		428928	428926			
65	428952			428984	428987	528079
85	428953					
105	428954					

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