

## Powermax<sup>®</sup> 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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# The Hypertherm Associates corporate story

Hypertherm. OMAX. Centricut. ProNest. AccuStream, Robotmaster. These names and more represent the world's leading industrial cutting technologies and solutions, and they can all be found in one company: Hypertherm Associates. With constancy of purpose, a drive to innovate, and a passion for customer success, Hypertherm Associates is leading the industrial cutting and shaping industry.

## Shaping Possibility

Since our founding in 1968, we have always believed in the value of surpassing expectations. It's why we make continued investments in people. It's why we invest aggressively in ongoing product development. And now, it's why we'll be known as Hypertherm Associates: a 100% Associate-owned company composed of the world-class industrial cutting technologies and solutions you know and trust – plasma, waterjet, CAD-CAM, robotic software, and more – to help our customers succeed in ways that have never before been possible.

Hypertherm Associates builds on our legacy of challenging what's achievable with the products we create, the culture we foster, and the experience we deliver to our customers – and then goes further. Whether plasma, waterjet, or the consumables, software, and services that enable connected factories and optimized performance, the solutions that help our customers meet their business objectives can all be found in one place: Hypertherm Associates.

## Committing to Success

Behind the name Hypertherm Associates lies a fundamental commitment to the success of people: our customers, partners, our Associates, and communities. Our dedication to 100% Associate ownership is a direct result of that commitment. By maintaining complete independence from external shareholders or other corporate entities, we can focus on our customers and partners to deliver exactly what they need. And because our Associates work together moving toward a common goal, they are an energized workforce dedicated to delivering a consistently superior customer experience.

## Leading the Industry

From aerospace to agriculture and energy to infrastructure, the people, brands, and technologies of Hypertherm Associates can already be found everywhere advanced manufacturing is happening around the globe. In fact, hundreds of thousands of businesses are relying on Hypertherm Associates technologies and solutions right now for performance and reliability that help increase their productivity and profitability. And that's why companies worldwide turn to Hypertherm Associates to build ships, airplanes, and railcars, to construct steel buildings and bridges, to fabricate heavy equipment and wind turbines, and a whole lot more.

Through our portfolio of technologies and solutions, Hypertherm Associates employs more than 1,900 people and maintains operations and partner representation globally. With Hypertherm Associates, we've created a framework for growth and expansion that will allow us to bring the latest innovations to our customers more quickly, and with a deeper level of integration and customer support.

Hypertherm Associates is the evolution of a vision that continues to put our customers first, to solve their challenges, and to make it even easier to do business with us. Our global team is committed to continuously finding ways to make our company, our customers, and our communities more successful, and we're excited to have you with us as we continue our journey of shaping possibility.



# 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.**



# 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

### Safer

Cutting with a plasma system requires no flammable gasses.

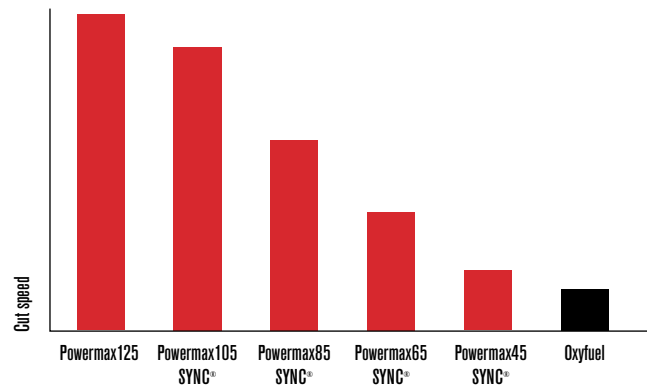
### Delivers higher productivity

- 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: 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 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

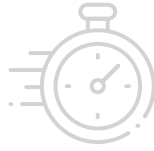


Powermax plasma cutters and our long-life cartridges provide better and more consistent cut quality, boosting productivity.

# 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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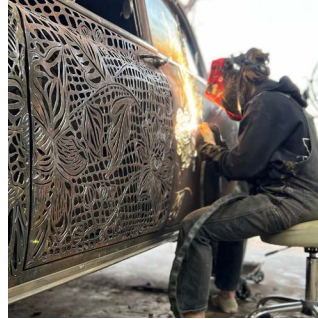
# When you invest in a Powermax, you invest in versatility

Powermax® provides the widest variety of plasma cartridges and torch options available so you can excel in your job by expanding your cutting and gouging capabilities. This versatility of application capabilities distinguishes Powermax from any other plasma system on the market.



## Drag cutting

For consistent torch motion and improved cut edge quality



## FineCut®

For intricate and fine feature cutting with minimal dross



## Mechanized cutting

For a variety of automated cutting applications with machine torches



## HyAccess™

For cutting or gouging in hard to reach or confined spaces



## Robotic cutting

Supports your most complex projects and dramatically improves efficiency



## FlushCut™

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



## Gouging

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

Protect your investment. Genuine Hypertherm torches, consumables, and cartridges keep your Powermax system running at peak performance. They incorporate the latest technologies and are expertly manufactured to enhance cut quality, extend consumable life up to 5 times longer than competitors, boost productivity, and lower operating costs. Choose Powermax.



# 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	10-45	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

# 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 compressed 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

Agricultural equipment manufacturer



# 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

## Powermax30 XP 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.

## The Powermax30 XP. 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

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

CCC – for use in China.

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

CE	CCC	CSA	Specifications
<b>Input voltages (± 10%)</b>			
↳	↳	↳	120–240 V, 1-PH, 50/60 Hz
<b>Input current @ 3.8 kW</b>			
↳	↳	↳	120–240 V, 1-PH, 25.5–18.8 A
<b>Output current</b>			15–30 A
<b>Rated output voltage</b>			125 VDC
<b>Duty cycle @ 40° C (104° F)</b>			
↳	↳	↳	35%, 240 V
↳	↳	↳	20%, 120 V
<b>Open circuit voltage (OCV)</b>			
↳	↳	↳	256 VDC
<b>Dimensions with handles</b>			356 mm (14.0") D; 140 mm (5.5") W; 292 mm (11.5") H
<b>Weight w/4.5 m (15') torch</b>			9.5 kg (21.4 lbs)
<b>Gas supply</b>			Clean, dry, oil-free air or nitrogen
<b>Recommended gas inlet flow rate/pressure</b>			113.3 l/min (4 scfm) @ 80 psi, 5.5 bar (80 psi)
↳	↳	↳	9.5 kg (21.4 lbs)
<b>Input power cable length</b>			3 m (10')
<b>Power supply type</b>			Inverter – IGBT
<b>Engine drive requirement</b>			5.5 kW for full 30 A output
<b>Warranty</b>			Power supply: 3-year, Torch: 1-year

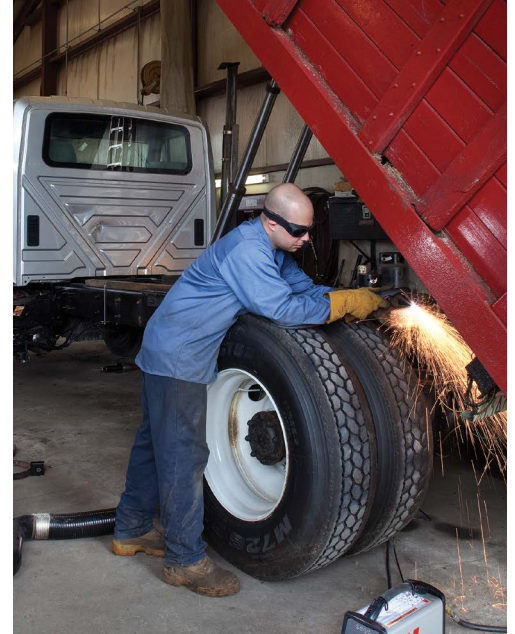


## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.			Duramax LT torch hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead	
CCC – for use in China.				
CSA – for use in the Americas and Asia, except China.				
CE	CCC	CSA	Torch lead length	4.5 m (15')

<b>Powermax30 XP® power supply with with 4.5 m (15') DuramaxLT torch</b>		<b>Handheld</b>
↳	120-240 V standard and carry case, gloves, and shade 5 glasses	088079
↳	120-240 V standard	088081
↳	120-240 V standard	088084
↳	120-240 V standard	088082



## 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

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

## System includes

- Power supply, 15'4.5 m Duramax™ LT hand torch with standard consumables, 15'4.5 m 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

## Powermax30 AIR 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.

## Powermax30 AIR. 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

## 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)



## Specifications

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

CCC – for use in China

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

CE	CCC	CSA	Specifications
<b>Input voltages (± 10%)</b>			
↳	↳	↳	200–240 V, 1-PH, 50–60 Hz
<b>Input current @ 2..5 kW</b>			
↳	↳	↳	120–240 V, 1-PH, 29–15 A
<b>Output current</b>			15–30 A
<b>Rated output voltage</b>			83 VDC
<b>Duty cycle @ 40° C (104° F)</b>			
↳	↳	↳	35%, 240 V
↳	↳	↳	20%, 120 V
<b>Open circuit voltage (OCV)</b>			
↳	↳	↳	256 VDC
<b>Dimensions with handles</b>			420 mm (16.5") D; 195 mm (7.7") W; 333 mm (13.1") H
<b>Weight with 6.1 m (20') torch</b>			
↳	↳	↳	13.5 kg, (29.8 lbs)
<b>Input power cable length</b>			3 m (10')
<b>Power supply type</b>			Inverter – IGBT
<b>Engine drive requirement</b>			5.5 kW for full 30 A output
<b>Warranty</b>			Power supply: 3-year, Torch: 1-year

## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.	AIR T30 hand torch with 4.5 m (15') lead and work clamp with 4.5 m (15') lead			
CCC – for use in China				
CSA – for use in the Americas and Asia, except China				
CE	CCC	CSA	Torch lead length	4.5 m (15')

Powermax30 AIR® power supplies		Handheld
↳	120–240 V standard power supply	088096
↳	120–240 V standard power supply	088103
↳	120–240 V standard power supply	088098

# Powermax SYNC series

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

Part of 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
- 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.

**“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

## 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.

- 7-step amperage LED scale
- Active/Inactive/Fault LED
- Gouging mode LED
- Amperage adjustment button
- Torch lock switch



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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

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

CCC – for use in China

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

CE	CCC	CSA	Specifications
<b>Input voltages (± 10%)</b>			
		↳	200-240 V, 1-PH, 50-60 Hz
		↳	480 V, 3-PH, 50-60 Hz
↳	↳		230 V, 1-PH, 50-60 Hz
↳	↳		400 V, 3-PH, 50-60 Hz
<b>Input current @ 6.9 kW</b>			
		↳	200-240 V, 1-PH, 39/32 A
↳	↳		230 V, 1-PH, 33 A
↳	↳		400 V, 3-PH, 10 A
<b>Output current</b>			9-45 A
<b>Rated output voltage</b>			155 VDC
<b>Duty cycle @ 40° C (104° F)</b>			
		↳	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
↳	↳		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
↳	↳		100% @ 32 A, 400 V, 3-PH
<b>Open circuit voltage (OCV)</b>			
↳	↳	↳	275 VDC 200-240 V
		↳	275 VDC 480 V
↳	↳		265 VDC 400 V
<b>Dimensions with handles</b>			442 mm (17.4") D; 173 mm (6.8") W; 357 mm (14.1") H
<b>Weight with 6.1 m (20') torch</b>			
		↳	14 kg (31 lbs.)
↳	↳		15 kg (33 lbs.)
<b>Gas supply</b>			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), nitrogen
<b>Recommended gas inlet flow rate/pressure</b>			188 l/min @ 5.9 bar (400 scfh 6.7 scfm @ 90 psi)
<b>Input power cable length</b>			3 m (10')
<b>Power supply type</b>			Inverter – IGBT
<b>Engine drive requirement</b>			12.5 kVA (10 kW) for full 45 A output
<b>Electrical efficiency</b>			90%
<b>Recyclability</b>			100%
<b>Warranty</b>			Power supply: 3-year, Torch: 1-year

## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted.n CCC – for use in China 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		
CE	CCC	CSA	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				
	↳	230V CSA standard power supply		088560	088561	088564					
	↳	230V CSA power supply with CPC port and voltage divider		088562	088563		088580	088582	088581	088583	
	↳	230V CSA power supply with CPC port, voltage divider board, and serial port					088584				
↳	↳	400V CE/CCC standard power supply		088565	088566						
↳	↳	400V CE/CCC power supply with CPC port and voltage divider		088567			088585		088586		
↳	↳	230V CE/CCC standard power supply		088568							
↳	↳	230V CE/CCC power supply with CPC port and voltage divider		088569			088587				

## Custom configurations

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

### Power supply options

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC –for use in China CSA – for use in the Americas and Asia, except China			Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port	
CE	CCC	CSA				
	↳	Powermax45 SYNC 230V CSA		088570	088571	088572
	↳	Powermax45 SYNC 480V CSA		088573		
↳	↳	Powermax45 SYNC 400V CE/CCC		088574	088575	088576
↳	↳	Powermax45 SYNC 230V CE/CCC		088577	088578	088579

### 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*

### Specialty cartridge options

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

\*Kit includes three 420580 ohmic ring clips.

# 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

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

CCC – for use in China

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

CE	CCC	GSA	
<b>Input voltages (± 10%)</b>			
		↳	200-480 V, 1-PH, 50/60 Hz
		↳	200-600 V, 3-PH, 50/60 Hz
↳	↳		380/400 V, 3-PH, 50-60 Hz
<b>Input current @ 9 kW</b>			
		↳	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
↳	↳		380/400 V, 15.5/15 A
<b>Output current</b>			
20-65 A			
<b>Rated output voltage</b>			
139 VDC			
<b>Duty cycle @ 40° C (104° F)</b>			
		↳	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
↳	↳		50% @ 65 A, 380-400 V, 3-PH
↳	↳		100% @ 46 A, 380-400 V, 3-PH
<b>Open circuit voltage (OCV)</b>			
↳	↳	↳	295 VDC
↳	↳		270 VDC
<b>Dimensions with handles</b>			
483 mm D; 233 mm W; 430 mm H (19" D; 9.2" W; 17" H)			
<b>Weight with 7.6 m (25') torch</b>			
		↳	27.8 kg (61.7 lbs.)
↳	↳		24.1 kg (52.7 lbs.)
<b>Gas supply</b>			
Clean, dry, oil-free air or nitrogen			
<b>Optimum inlet gas pressure</b>			
7.6-8.3 bar (110-120 psi)			
<b>Minimum inlet gas pressure</b>			
5.2 bar (75 psi)			
<b>Recommended gas inlet flow rate/pressure</b>			
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)			
<b>Input power cable length</b>			
3 m (10')			
<b>Power supply type</b>			
Inverter – IGBT			
<b>Engine drive requirement</b>			
15 kW or 18.7 kVa for full 65 A output			
<b>Electrical efficiency</b>			
91.2%			
<b>Recyclability</b>			
100%			
<b>Warranty</b>			
Power supply: 3-year, Torch: 1-year			



## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China 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			
CE	CCC	CSA	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							
↶ ↷			Standard power supply	083356	083357	083360							
		↷	Standard power supply	083343	083344	083347							
↶ ↷			Power supply with CPC port and voltage divider	083358	083359		083362	083327		083363	083364	083365	
		↷	Power supply with CPC port and voltage divider	083345	083346		083348	083349		083361	083350	083351	
↶ ↷			Power supply with CPC port, voltage divider, and serial port					083366	083377		083367		
		↷	Power supply with CPC port, voltage divider, and serial port				083352		083375*		083376*		

\* with ring terminated work lead

## Custom configurations

Select power supply, torch, work cable, cartridges and other components

### Power supply options

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China CSA – for use in the Americas and Asia, except China			Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port	
CE	CCC	CSA				
↶ ↷			Powermax65 SYNC 380–400 V	083368	083369	083370
		↷	Powermax65 SYNC 200–600 V	083371	083372	083373

### 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			

\*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

# 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") O 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

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

CCC – for use in China

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

CE	CCC	CSA	
<b>Input voltages (± 10%)</b>			
			↳ 200-480 V, 1-PH, 50/60 Hz
			↳ 200-600 V, 3-PH, 50/60 Hz
↳	↳		400 V, 3-PH, 50-60 Hz
<b>Input current @ 12.2 kW</b>			
			↳ 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
↳	↳		380/400 V, 3-PH 20.5/19.5 A
<b>Output current</b>			
25-85 A			
<b>Rated output voltage</b>			
143 VDC			
<b>Duty cycle @ 40° C (104° F)</b>			
			↳ 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
↳	↳		60% @ 85 A, 380-400 V, 3-PH
↳	↳		100% @ 66 A, 380-400 V, 3-PH
<b>Open circuit voltage (OCV)</b>			
			↳ 305 VDC
↳	↳		270 VDC
<b>Dimensions with handles</b>			
483 mm D; 233 mm W; 430 mm H (19" D; 9.2" W; 17" H)			
<b>Weight with 7.6 m (25') torch</b>			
			↳ 32 kg (67 lbs.)
↳	↳		23.5 kg (52 lbs.)
<b>Gas supply</b>			
Clean, dry, oil-free air or nitrogen			
<b>Optimum inlet gas pressure</b>			
7.6-8.3 bar (110-120 psi)			
<b>Minimum inlet gas pressure</b>			
5.2 bar (75 psi)			
<b>Recommended gas inlet flow rate/pressure</b>			
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)			
<b>Input power cable length</b>			
3 m (10')			
<b>Power supply type</b>			
Inverter – IGBT			
<b>Engine drive requirement</b>			
20 kW or 25 kVa for full 85 A output			
<b>Electrical efficiency</b>			
91.9%			
<b>Recyclability</b>			
100%			
<b>Warranty</b>			
Power supply: 3-year, Torch: 1-year			

## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China 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		
CE	CCC	CSA	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								
↶	↷		Standard power supply	087196	087197	087200									
		↷	Standard power supply	087183	087184	087187									
↶	↷		Power supply with CPC port and voltage divider	087198	087199		087201	087202			087203	087204			
		↷	Power supply with CPC port and voltage divider	087185	087186		087207	087189		087208	087190				
↶	↷		Power supply with CPC port, voltage divider, and serial port					087205	087220		087206				
		↷	Power supply with CPC port, voltage divider, and serial port				087192		087218 *		087219 *				

\* with ring terminated work lead

## Custom configurations

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

### Power supply options

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China CSA – for use in the Americas and Asia, except China			Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port	
CE	CCC	CSA				
↶	↷		Powermax85 SYNC 380–400 V	087210	087211	087212
		↷	Powermax85 SYNC 200–600 V	087213	087214	087215

### 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			

\*Kit includes three 420580 ohmic ring clips.

### Specialty cartridge options

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

# 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

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

CCC – for use in China

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

CE	CCC	CSA
----	-----	-----

Input voltages (± 10%)			
↳	↳	↳	200-600 V, 3-PH, 50/60 Hz
↳	↳		380-400 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
↳	↳		230/400 V, 3-PH 50/29 A
			380/400 V, 3-PH 30/28 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
↳	↳		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)			
		↳	300 VDC
↳	↳		288 VDC
Dimensions with handles			592 mm D; 274 mm W; 508 mm H (23.3" D; 10.8" W; 20.0" H)
Weight with 7.6 m (25') torch			
↳	↳	↳	230-400 V: 42.7 kg (94 lbs.)
↳	↳		400 V: 39.4 kg (87 lbs.)
Gas supply			Clean, dry, oil-free air or nitrogen
Optimum inlet gas pressure			7.6-8.3 bar (110-120 psi)
Minimum inlet gas pressure			5.5 bar (80 psi)
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: 3-year, Torch: 1-year



## Ordering information

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

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China 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		
CE	CCC	CSA	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			
↶ ↷	↶ ↷		Standard power supply 380–400 V	059690	059691	059692
↶ ↷	↶ ↷		Standard power supply 230–400 V	059679	059680	
		↶ ↷	Standard power supply 200–600 V	059625	059626	059634
↶ ↷	↶ ↷		Power supply with CPC port and voltage divider 380–400 V	059679	059680	
↶ ↷	↶ ↷		Power supply with CPC port and voltage divider 230–400 V			
		↶ ↷	Power supply with CPC port and voltage divider	059627	059628	
↶ ↷	↶ ↷		Power supply with CPC port, voltage divider, and serial port			
↶ ↷	↶ ↷		Power supply with CPC port, voltage divider, and serial port 380–400 V			
		↶ ↷	Power supply with CPC port, voltage divider, and serial port 230–400 V			

Mechanized					
059694	059693		059695	059681	
	059682			059683	
059636	059637		059639	059638	059687
	059697	059765		059698	
	059712	059764			
	059684	059762*		059763	

\* with ring terminated work lead

## Custom configurations

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

### Power supply options

CE – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. CCC – for use in China CSA – for use in the Americas and Asia, except China		Standard	With CPC port and voltage divider	With CPC port, voltage divider and serial port		
CE	CCC	CSA				
↶ ↷	↶ ↷		Powermax105 SYNC 380–400 V	059708	059709	059710
↶ ↷	↶ ↷		Powermax105 SYNC 230–400 V	059701	059702	059703
		↶ ↷	Powermax105 SYNC 200–600 V	059704	059705	059706

### Work leads

	Hand clamp	C-clamp	Ring terminal
7.6 m (25')	223254	223287	223284
15.2 m (50')	223255	223288	223285
22.8 m (75')	223256	223289	223286

### 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	

\*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					

# 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 or robotic cutting, or 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

## Powermax125 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.

## Powermax125. 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

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

CCC – for use in China





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

CE	CCC	CSA	
<b>Input voltages (± 10%)</b>			
		↳	480/600 V, 3-PH, 50/60 Hz
	↳		380 V, 3-PH, 50/60 Hz
↳			400 V, 3-PH, 50/60 Hz
<b>Input current @ 12.2 kW</b>			
		↳	480/600 V, 31/24 A
↳	↳		380 V, 3-PH, 38 A
↳	↳		400 V, 3-PH, 36 A
<b>Output current</b>			30–125 A
<b>Rated output voltage</b>			175 VDC
<b>Duty cycle @ 40° C (104° F)</b>			
		↳	100% @ 125 A, 480/600 V, 3-PH
↳	↳		100% @ 125 A, 380/400 V, 3-PH
<b>Open circuit voltage (OCV)</b>			
		↳	320 VDC
	↳		290 VDC
↳			305 VDC
<b>Dimensions with handles</b>			592 mm D; 274 mm W; 508 mm H (23.3" D; 10.8" W; 20.0" H)
<b>Weight with w/7,6 m (25') torch</b>			
		↳	480 V 47.9 kg (105.7 lbs)
		↳	600 V 47.5 kg (104.7 lbs)
↳	↳		380 V 45.2 kg
↳	↳		400 V 48.9 kg
<b>Gas supply</b>			Clean, dry, oil-free air or nitrogen
<b>Optimum inlet gas pressure</b>			7.6–8.3 bar (110–120 psi)
<b>Minimum inlet gas pressure</b>			5.5 bar (80 psi)
<b>Recommended gas inlet flow rate/pressure</b>			Cutting: 260 l/min (550 scfh) @ 5.9 bar (85 psi) Gouging: 212 l/min (450 scfh) @ 4.1 bar (60 psi)
<b>Input power cable length</b>			3 m (10')
<b>Power supply type</b>			Inverter – IGBT
<b>Engine drive requirement</b>			40 kW or 50 kVA for full 125 A output
<b>Electrical efficiency</b>			91%–92%
<b>Recyclability</b>			100%
<b>Warranty</b>			Power supply: 3-year, Torch: 1-year

## Ordering information

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

<b>CE</b> – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. <b>CCC</b> – for use in China <b>CSA</b> – 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 85° hand torch
<b>CE</b>	<b>CCC</b>	<b>CSA</b>	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	10.7 m/7.6 m (35'/25')
			✓ = With remote pendant				✓		✓		✓






Powermax125® power supplies		Voltage configuration	Handheld				Mechanized						
 	Power supply with CPC port and voltage divider	380 V CCC <sup>1</sup>	059556	059557			059558	059583			059584		
		400 V CE	059526	059527	059528	059572	059530			059531			059529
		480 V	059536	059537	059538	059569	059539			059540			059541
		600 V	059546	059547	059555	059570	059552			059553			059554
 	Power supply with CPC port, voltage divider, and serial port	380 V CCC <sup>1</sup>					059560			059561			
		400 V					059532	059534		059533	059535		
		480 V					059542	059544		059543	059545		
		600 V					059550	059548		059551	059549		

<sup>1</sup> Does not include a power cord.

## Custom configurations

Select power supply, torch, work cable, consumables (see page 26), and other components

### Power supply options

<b>CE</b> – for use in Europe, Australia & New Zealand - RCM, Serbia, UK – UKCA, Ukraine, and other countries where accepted. <b>CCC</b> – for use in China <b>CSA</b> – for use in the Americas and Asia, except China			With CPC port and voltage divider		With CPC port, voltage divider and serial port	
<b>CE</b>	<b>CCC</b>	<b>CSA</b>				
			Powermax125 380 V <sup>1</sup>	059490		059491
			Powermax125 400 V	059486		059487
			Powermax125 480 V	059488		059489
			Powermax125 600 V	059509		059510

<sup>1</sup> Does not include a power cord.

### Work leads

	Hand clamp	C-clamp	Rign terminal
7.6 m (25')	223292	223298	223295
15.2 m (50')	223293	223299	223296
22.8 m (75')	223294	223300	223297
45.7 m (150')	223737		223744

### 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					

## 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 <sup>1</sup>	220997	220971
		65	420169	420168			
		125/105	220975	220976			
FineCut®	Hand	45	420151	420152	220977 or 420156 <sup>1</sup>	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

<sup>1</sup> 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	Duramax® Lock hand, and mechanized	428951
Powermax65	Duramax hand, mechanized and robotic	
Powermax85		
Powermax105		

- 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

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**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  
017035 Shade 5



**Adjustable eye shades**  
127416 Shade 5



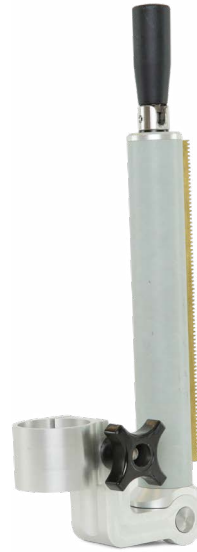
**Clear safety shields**  
017034



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

## Torch accessories

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**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

# Powermax torches

## Extensive array of torch options

Current systems	Amps	Torch series	Torch style(s)							
			Current	Hand torch	Straight hand torches	Straight machine torches	Short machine torches	Robotic torches	Long torches	
 Powermax30® XP	30	Duramax® LT		4.5 m (15') lead						
 Powermax30 AIR	30	AIR T30		4.5 m (15') lead						
 Powermax45 SYNC®	45	SmartSYNC®								
 Powermax65 SYNC	65		7.6 m (25') lead 15.2 m (50') lead 22.8 m (75') lead 30.5 m (100') lead	7.6 m (25') lead 15.2 m (50') lead 22.8 m (75') lead	7.6 m (25') lead 10.7 m (35') lead 15.2 m (50') lead 22.8 m (75') lead		4.5 m (15') lead 7.6 m (25') lead 15.2 m (50') lead 22.8 m (75') lead	7.6 m (25') lead 15.2 m (50') lead		
 Powermax85 SYNC	85									
 Powermax105 SYNC	105									
 Powermax125	125	Duramax Hyamp™	7.6 m (25') lead 15.2 m (50') lead 22.8 m (75') lead 45.7 m (150') lead	7.6 m (25') lead 15.2 m (50') lead 22.8 m (75') lead 45.7 m (150') lead	4.5 m (15') lead 7.6 m (25') lead 10.7 m (35') lead 15.2 m (50') lead 22.8 m (75') lead	4.5 m (15') lead 7.6 m (25') lead 10.7 m (35') lead 15.2 m (50') lead 45.7 m (150') lead	7.6 m (25') lead 15.2 m (50') lead	0.6 m (2') option 1.2 m (4') option 1.83 m (6') option 7.6 m (25') lead 15.2 m (50') lead 45.7 m (150') lead		

## Powermax SYNC® torch options

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

## Powermax torch options

Torch type	System	Torch style
Duramax® LT	Powermax30 XP	
AIR T30	Powermax30 AIR	Hand
Duramax Hyamp™	Powermax125	
		Hand
		
		Long
		
		Machine
		
		Robotic

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

# 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



## 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



## 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 Powermax105	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			

\*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					

# SHAPING POSSIBILITY®

PLASMA | LASER | WATERJET | AUTOMATION | SOFTWARE | CONSUMABLES

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