Hypertherm®

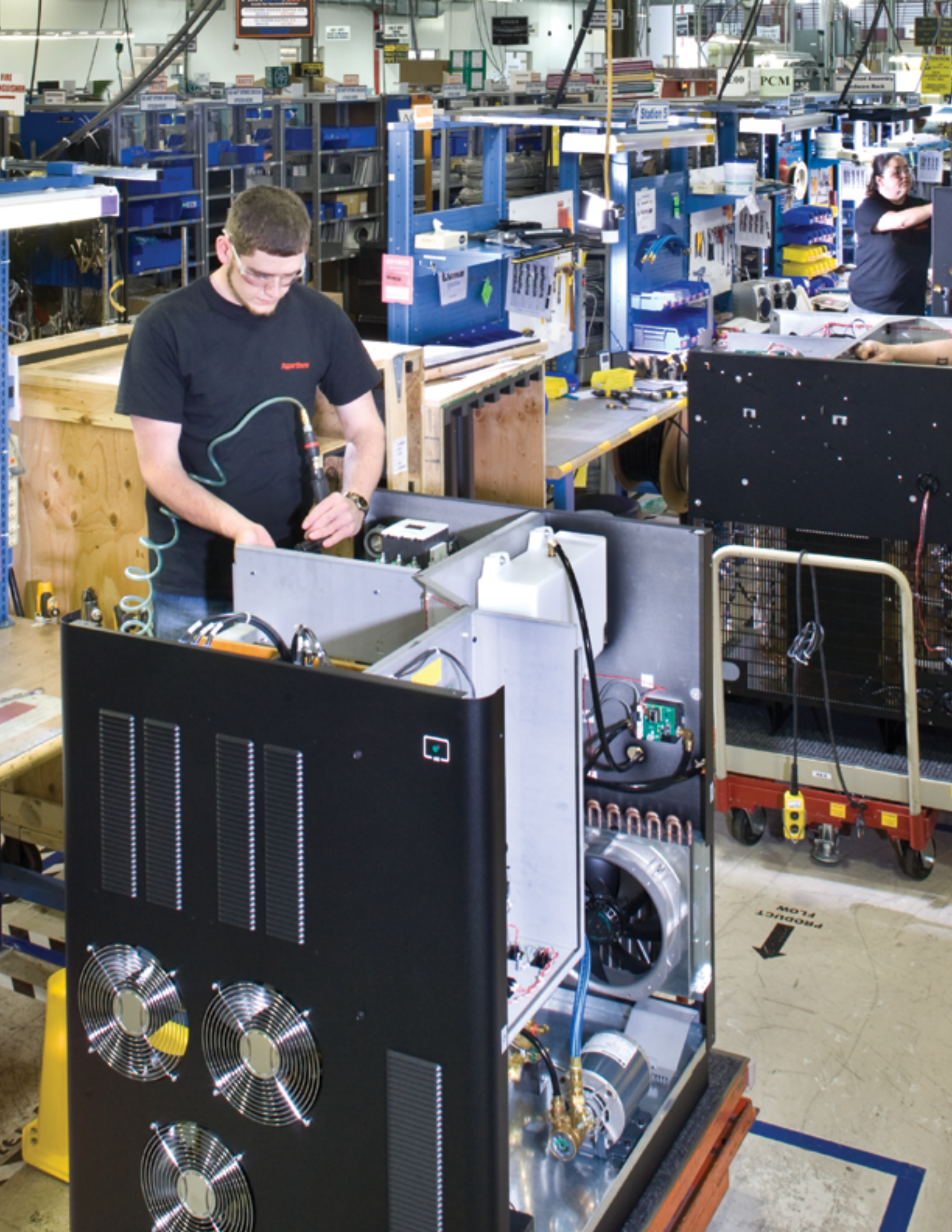
HyPerformance® Plasma family brochure

Featuring HyDefinition®, PowerPierce® and HDi™ technologies

HyPerformance® Plasma HPR260XD®

HyPerformance® Plasma HPR400XD®

HyPerformance® Plasma HPR800XD®


PCM
Station 5
PRODUCT FLOW

Contents

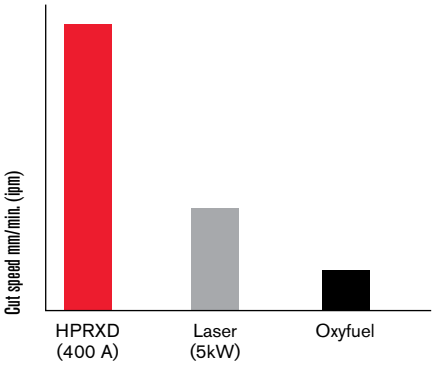
Maximized productivity

HyPerformance® Plasma combines fast cutting speeds, rapid process cycling, quick changeovers and high up time to maximize productivity.

- HyPerformance Plasma delivers HyDefinition® precision at unprecedented cutting speeds to deliver more parts per hour.
- Rapid cut-to-cut and cut-to-mark cycle times result in less downtime between cuts.
- Quick-disconnect torch, auto gas console option and intuitive user interface all reduce set-up time.
- Long consumable life and high system reliability maximize productive “arc-on” time.

HyPerformance Plasma cutting is 2–5 times faster

25 mm (1") mild steel



Superior cut quality and consistency

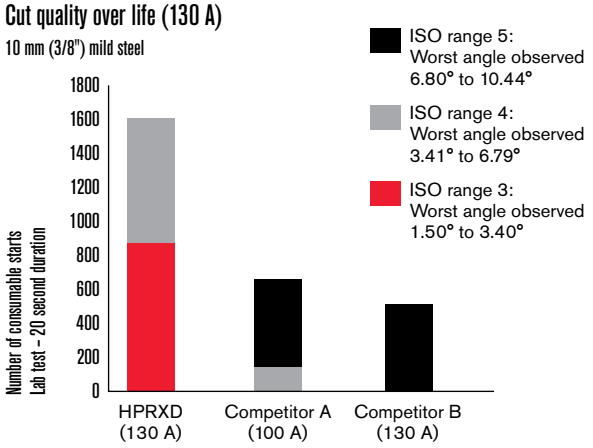
HyPerformance® Plasma cuts fine-feature parts with superior quality and consistency, virtually eliminating the cost of secondary operations.

- HyDefinition® and LongLife®, deliver more consistent cut quality over a longer period of time than other systems available on the market.
- True Hole® technology, for HyPerformance Plasma auto gas systems, produces hole quality on mild steel that is significantly better than what has been previously achievable using plasma.*
- Hypertherm leads the way in stainless steel cutting, with new HDi™ technology for thin stainless, optimized gas mixing for mid-range thicknesses and patented PowerPierce® technology combined with an innovative controlled pierce process for the thickest piercing and cutting capability available.
- Hypertherm consumables are manufactured with the highest quality standards to ensure consistent performance.

*True Hole technology requires a HyPerformance Plasma HPRXD auto gas system along with a True Hole enabled cutting table, nesting software, CNC, and torch height control. Consult with your table manufacturer for more details.

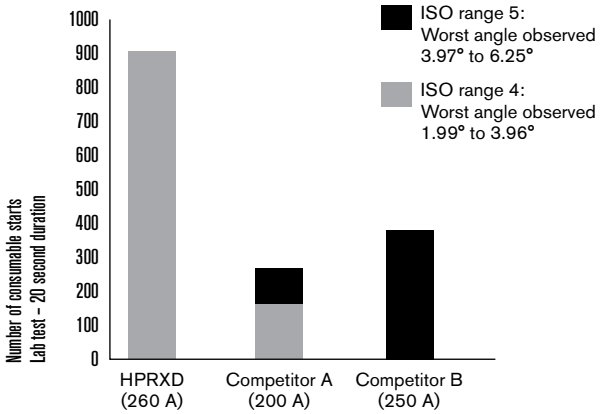
Cut quality over life (130 A)

10 mm (3/8") mild steel



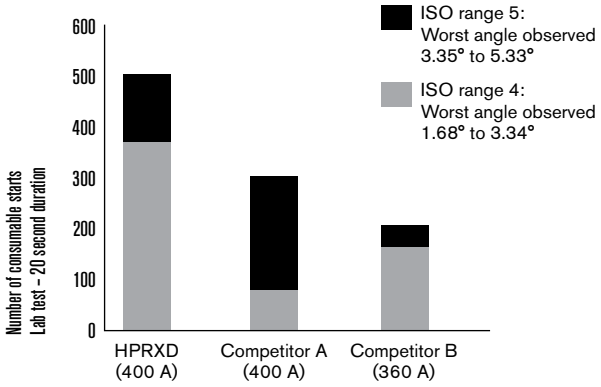
Cut quality over life (260 A)

20 mm (3/4") mild steel



Cut quality over life (400 A)

25 mm (1") mild steel




Hypertherm

Minimized operating cost

HyPerformance® Plasma lowers your cost per part and improves profitability.

More parts per hour

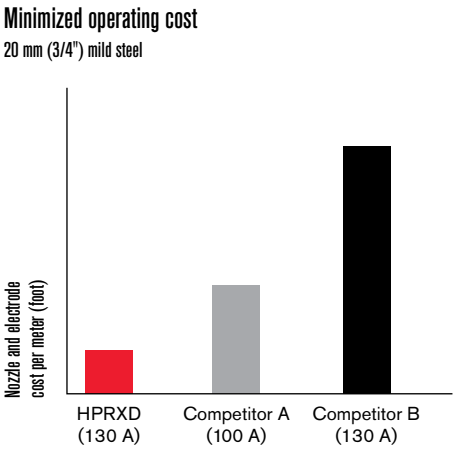
- HyPerformance Plasma systems provide faster cut speeds to produce more parts per hour.
- Hypertherm's patented PowerPierce® technology makes it possible to cut thicker than ever before and replace slower-cutting technologies such as oxyfuel.
- HyPerformance Plasma's superior quality and consistency maximize the number of parts produced per hour by minimizing time-consuming secondary operations.

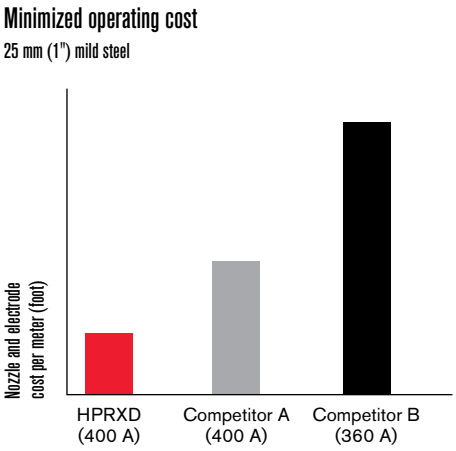
Longer consumable life

- LongLife® and PowerPierce technologies significantly increase consumable life and reduce your cost per part.
- Hypertherm consumables are manufactured with the highest quality standards to ensure consistently longer life.

Do more with less power

- Patented consumable designs enable industry-leading cutting speeds and robust production piercing using lower amperage levels.
- HyPerformance Plasma enables extremely high cutting speeds per amp with less cutting current than other plasma solutions on the market.
- Hypertherm's power supplies are designed to be extremely efficient in their use of electricity, enabling lower electrical expense and a reduced impact on the environment.



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Unmatched reliability

Hypertherm combines four decades of experience and world-class design, manufacturing and testing processes to build in reliability that you can trust.

Reliable by design

- During development, Hypertherm systems endure rigorous reliability testing procedures that are equivalent to years of use in extreme operating environments.
- Systems are subject to a wide range of temperatures, humidity levels, vibration, electrical noise, and incoming voltage to ensure that the final products are extremely robust.

Robust manufacturing and test processes

- Best-in-class lean manufacturing processes reduce the opportunity for error ensuring every Hypertherm system meets our high quality standards.
- All Hypertherm systems go through extensive automated testing before they are shipped.
- Hypertherm's manufacturing and test teams are dedicated to delivering the highest quality plasma products on the market.

Reliable operation

- Self diagnostics are performed automatically at start up and continually throughout the cutting process. This ensures the system is operating at full capability.

"When designing new systems, we test them until they break. Then we find the problem, fix it, and test them again, always under the most severe operating conditions – conditions far tougher than anything the product is likely to see in the real world. It's a 24-hour-a-day operation and it's an integral part of our product development process."

Aaron Brandt, Vice President of Engineering, Hypertherm

Unmatched versatility

HyPerformance® Plasma cuts, bevels, and marks a variety of metals, from thin to thick, making it the system that can do it all.

- HyPerformance Plasma cuts carbon steel, stainless steel, aluminum, and other metals with HyDefinition® precision.
- Bevel cutting up to 45°.
- Mark, cut, and bevel with the same consumables.
- Customized factory-tested cut charts available for a variety of applications, including True Bevel™, True Hole®, fine feature, and underwater cutting.
- Full range of cutting thicknesses for mild steel from 0.5 mm (gauge) material to production piercing of 50 mm (2") with a maximum cutting thickness up to 80 mm (3.2").
- Stainless steel cutting range from 0.5 mm (gauge) material to production piercing of 75 mm (3") with a maximum pierce rating of 100 mm (4") and a maximum cutting thickness up to 160 mm (6-1/4").
- HDi™ technology delivers HyDefinition cut quality on thin stainless from 3 to 6 mm (12 ga to 1/4").
- Optimized gas mixing delivers superior cut quality and consistency with excellent surface finish on mid-range stainless steel thicknesses.
- Components and capabilities have been specifically designed for use in X-Y, bevel and robotic cutting applications.
- Modular power supply and console design enables easy upgrades to increase system capabilities when requirements change.

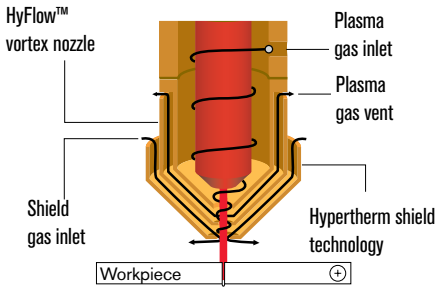

Hypertherm


Hypertherm

Hypertherm technology delivers more consistent cut quality for longer periods of time at half the operating cost.

HyDefinition®

- Vented nozzle technology aligns and focuses the plasma arc.
- HyDefinition technology enables powerful precision cutting for superior quality and consistency on mild steel.
- New HDi™ technology now delivers HyDefinition quality to thin stainless steel cutting.



LongLife®

- LongLife technology ramps current and gas flow up and down in a tightly controlled manner to reduce electrode and nozzle erosion.
- Reducing electrode and nozzle erosion enables more consistent cut quality over a longer period of time, while providing a significant reduction in operating cost.

True Hole®

- Patented True Hole** cutting technology for mild steel is a specific combination of cutting parameters that is optimized for each material thickness and hole size.
- Taper is virtually eliminated and the ding is reduced and biased to the outside of the hole, down to a 1:1 diameter to thickness ratio.

12 mm (1/2") hole with True Hole technology

12 mm (1/2") hole without True Hole technology

PowerPierce®

- Patented PowerPierce liquid cooled shield repels molten metal during piercing for maximum pierce capability of up to 50 mm (2") mild steel and 100 mm (4") stainless steel.
- Patented consumable designs deliver speed and thickness capabilities expected of higher amp systems.

Patented consumable technology

PowerPierce liquid cooled shield

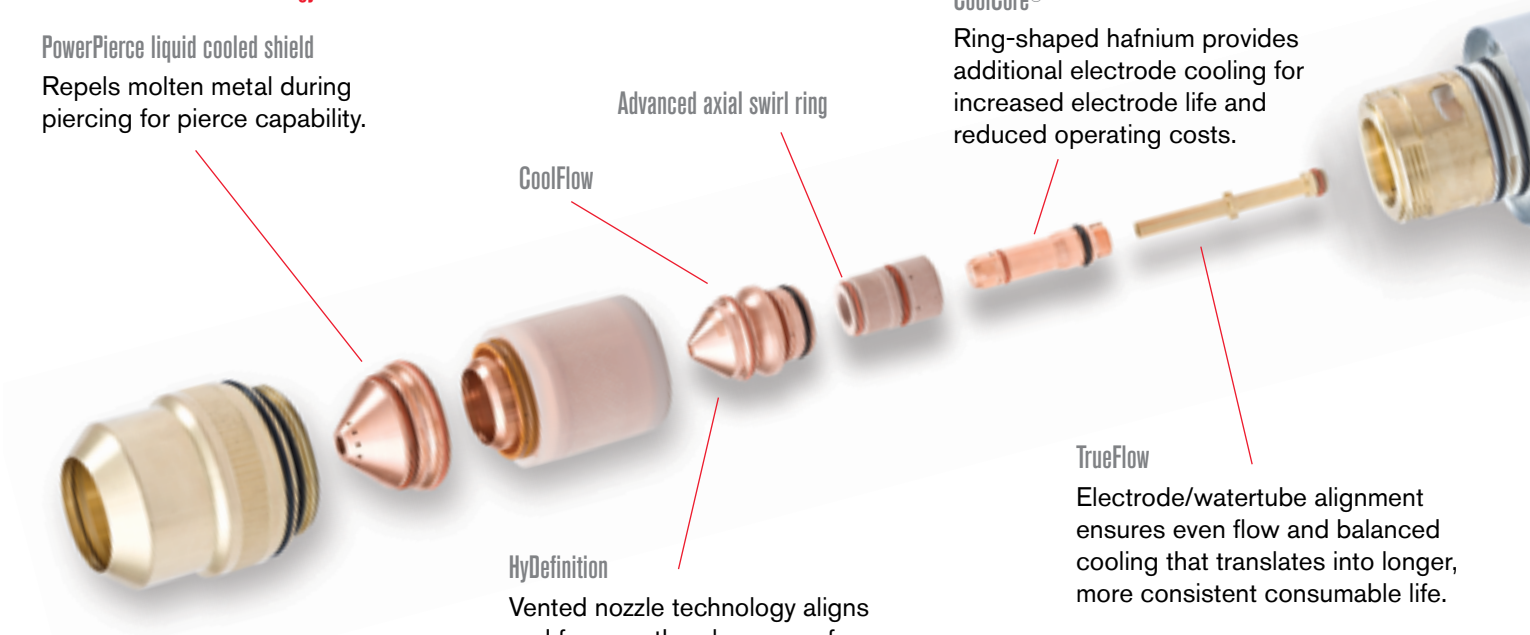
Repels molten metal during piercing for pierce capability.

Advanced axial swirl ring

CoolCore®

Ring-shaped hafnium provides additional electrode cooling for increased electrode life and reduced operating costs.

CoolFlow



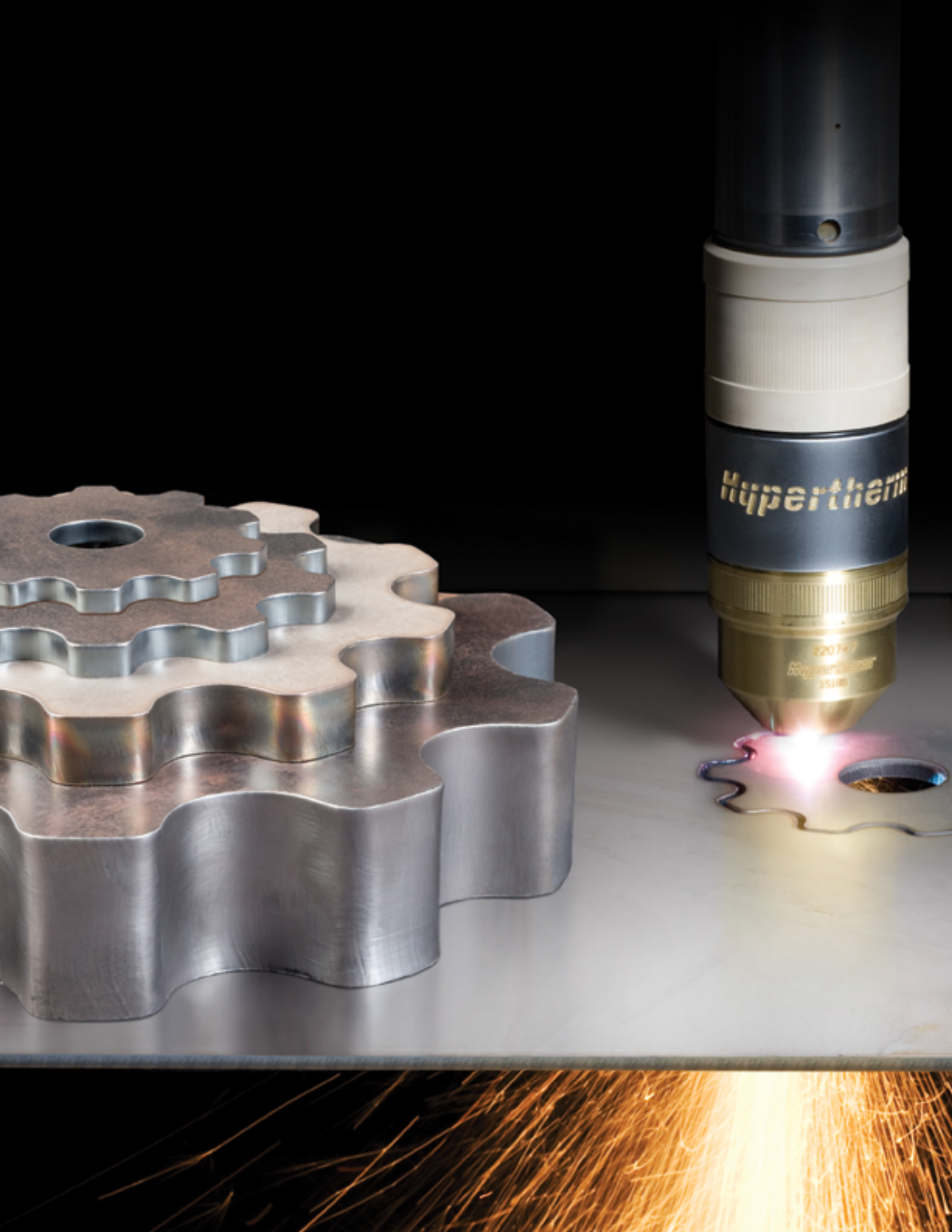
HyDefinition

Vented nozzle technology aligns and focuses the plasma arc for powerful precision cutting, superior quality and consistency.

TrueFlow

Electrode/watertube alignment ensures even flow and balanced cooling that translates into longer, more consistent consumable life.

** True Hole technology requires a HyPerformance Plasma HPRXD auto gas system along with a True Hole enabled cutting table, nesting software, CNC, and torch height control. Consult with your table manufacturer for more details.


Hypertherm

HyPerformance Plasma product line

HyPerformance Plasma customers can choose the systems and combination of options that best suit their requirements today. Modules are designed to work interchangeably providing the flexibility to easily upgrade to meet future needs. HyPerformance Plasma cuts fine-feature parts with superior quality and consistency, eliminating the cost of secondary operations.

HyPerformance® Plasma HPR130XD®

The HPR130XD delivers incomparable HyPerformance cut quality from very thin up to mid-range materials.

HPR130XD (30–130 amps)			
	Mild steel cut capacity	Stainless steel cut capacity	Aluminum cut capacity
Dross free*	16 mm (5/8")		
Production pierce	32 mm (1-1/4")	20 mm (3/4")	20 mm (3/4")
Maximum cutting capacity	38 mm (1-1/2")	25 mm (1")	25 mm (1")

HyPerformance Plasma HPR260XD

The HPR260XD delivers superior HyPerformance cutting across a broad range of application needs, from very thin to heavier thicknesses.

HPR260XD (30–260 amps)			
	Mild steel cut capacity	Stainless steel cut capacity	Aluminum cut capacity
Dross free*	32 mm (1-1/4")		
Production pierce	38 mm (1-1/2")	32 mm (1-1/4")	25 mm (1")
Maximum cutting capacity	64 mm (2-1/2")	50 mm (2")	50 mm (2")

HyPerformance Plasma HPR400XD

The HPR400XD delivers the ultimate in HyPerformance mild steel cutting as well as heavy-duty stainless and aluminum capability.

HPR400XD (30–400 amps)			
	Mild steel cut capacity	Stainless steel cut capacity	Aluminum cut capacity
Dross free*	38 mm (1-1/2")		
Production pierce	50 mm (2")	45 mm (1-3/4")	38 mm (1-1/2")
Maximum pierce**		75 mm (3")	
Maximum cutting capacity	80 mm (3.2")	80 mm (3.2")	80 mm (3.2")

HyPerformance Plasma HPR800XD

The HPR800XD delivers all the mild steel capability of the HPR400XD and adds the thickest stainless steel and aluminum cutting on the market today.

HPR800XD (30–800 amps)			
	Mild steel cut capacity	Stainless steel cut capacity	Aluminum cut capacity
Dross free*	38 mm (1-1/2")		
Production pierce	50 mm (2")	75 mm (3")	75 mm (3")
Maximum pierce**		100 mm (4")	
Maximum cutting capacity	80 mm (3.2")		
Severance		160 mm (6-1/4")	160 mm (6-1/4")

* Feature and material type can influence dross free performance.

** Maximum pierce requires controlled motion process. See technical documentation for details.

Operating data

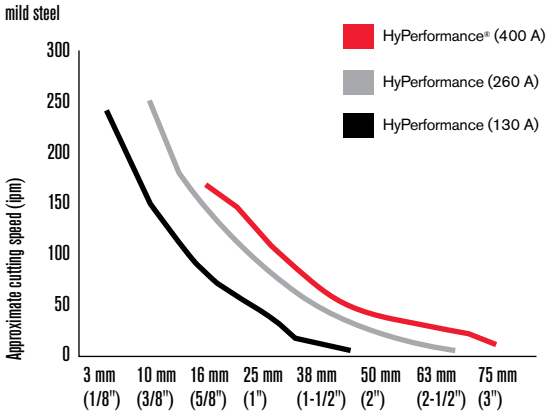
Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min.)	Thickness (inches)	Approximate cutting speed (ipm)
Mild steel O_2 plasma O_2 shield	30	0.5	5355	.018	215
		3	1160	.135	40
		6	665	1/4	25
O_2 plasma Air shield	80†	3	6145	.135	180
		6	3045	1/4	110
		20	545	3/4	25
O_2 plasma Air shield	130†	6	4035	1/4	150
		10	2680	3/8	110
		25	550	1	20
O_2 plasma Air shield	200	6	5248	1/4	200
		12	3061	1/2	115
		25	1167	1	45
		50	254	2	10
O_2 plasma Air shield	260†	10	4440	3/8	180
		20	2170	3/4	90
		64	195	2-1/2	8
O_2 plasma Air shield	400†	12	4430	1/2	170
		25	2210	1	85
		50	795	2	30
		80	180	3	10
Stainless steel F5 plasma N_2 shield	60	3	2770	0.105	120
		4	2250	0.135	95
		5	1955	3/16	80
		6	1635	1/4	60
H35 plasma N_2 shield	130†	10	980	3/8	40
		12	820	1/2	30
		25	260	1	10
H35 plasma N_2 shield	260†	12	1710	1/2	65
		20	1085	3/4	45
		25	785	1	30
		50	270	2	10
H35 and N_2 plasma N_2 shield	400†	20	1810	3/8	75
		40	720	1-1/2	30
		80	190	3	10
H35 plasma N_2 shield	800†	75	464	3	18
		125	155	5	6
		160	100	6-1/4	4
Aluminum Air plasma Air shield	45	1.5	4420	.048	220
		4	2575	.135	110
		6	1690	1/4	60
H35 plasma N_2 shield	130†	12	1455	1/2	55
		20	940	3/4	40
		25	540	1	20
H35 plasma N_2 shield	260†	12	5160	1/2	190
		20	2230	3/4	90
		50	390	2	14
H35 plasma N_2 shield	400†	20	2420	3/4	100
		40	1190	1-1/2	50
		80	210	3	10
H35 plasma N_2 shield	800†	75	907	3	35
		160	179	6-1/4	7

HDi

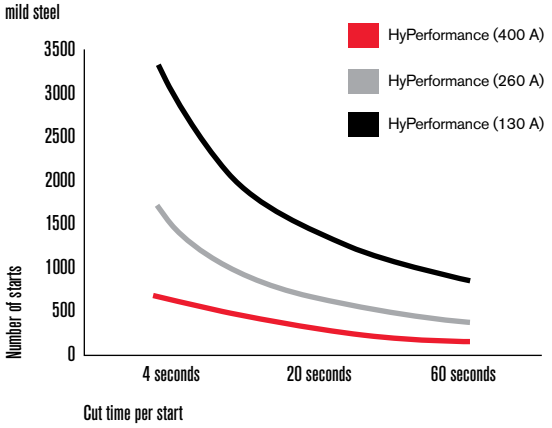
The operating data chart does not list all processes available for the HPR130XD®, HPR260XD, HPR400XD, and HPR800XD. Please contact Hypertherm for more information.
†Consumables support up to 45° bevel capability.

System comparisons

Cutting speed



Consumable life



Auto gas console

- Allows full control of all plasma system settings from the CNC, simplifying operator training requirements.
- Automatically changes processes on the fly to enable rapid switching between cutting and marking.
- Automatically adjusts for variations in incoming gas pressure to produce the most consistent cutting performance.
- The auto gas console is required to enable True Hole® technology and optimized gas mixing for mid-range stainless cutting.

Nearly 50 years of of Shaping Possibility

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

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

100% employee ownership matters

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

Worldwide presence and strength

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

Key elements of the Hypertherm formula include:

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

HELPING YOU SHAPE THE WORLD.

PLASMA | LASER | WATERJET | AUTOMATION | SOFTWARE | CONSUMABLES

For location nearest you, visit:
www.hypertherm.com

One of Hypertherm's long-standing core values is a focus on minimizing our impact on the environment. Doing so is critical to our, and our customers' success. We are always striving to become better environmental stewards; it is a process we care deeply about.

870780

Greener Cuts™

Hypertherm®
SHAPING POSSIBILITY™

Hypertherm®

MAXPRO200®

LongLife® air and oxygen plasma cutting system

Maximized productivity, easy operation, reliable performance

MAXPRO200

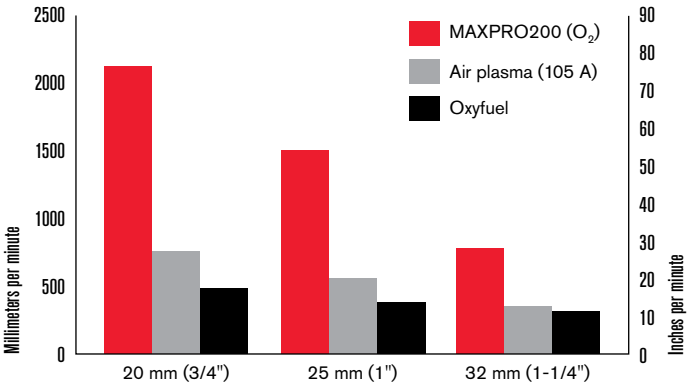
The MAXPRO200 plasma cutting system achieves impressive cut speeds, consistent cut quality and exceptional consumable life with air or oxygen plasma gas. Optimized cutting parameters are automatically set and controlled in one step for easy operation. Engineered for heavy-duty, high capacity mechanized and handheld cutting and gouging, the MAXPRO200 delivers reliable performance across a wide range of industrial applications.

Maximized productivity

MAXPRO200 combines fast cutting speeds and quick process changes to maximize productivity.

- The fastest cut speeds in its class produce more finished parts per hour.
- Engineered with 100% duty cycle for the most demanding production environments.
- Quickly transition between cutting, gouging, mechanized and handheld processes with automatic settings, tool free leads and quick disconnect torches.

Fast cutting speeds = maximum productivity



Easy operation

The easiest plasma system in its class for air and oxygen plasma cutting – easy to install, easy to operate, easy to maximize performance.

- Intuitive one step interface and automatic gas control deliver consistent results without operator intervention.

- Advanced diagnostics simplify troubleshooting and service.
- Optional serial communications allow full control of the system from the CNC.

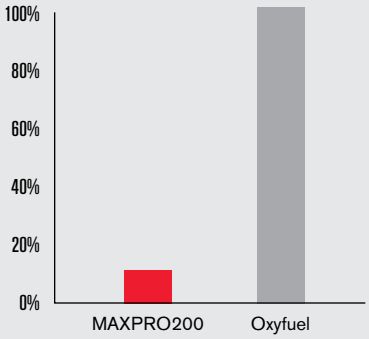
Step up to a superior technology

MAXPRO200 vs. oxyfuel

Cut speeds and pierce times are as much as 7 times faster for maximized productivity.

- Significantly lowers operating cost per part up to 50 mm (2").
- Less dross, less warping, and a smaller heat-affected zone to minimize high-cost secondary operations.
- Increases flexibility to cut and gouge mild steel, stainless steel, aluminum, and stacked, painted or rusted metal.
- Improves mild steel cutting safety over the use of acetylene, a highly flammable gas used for oxyfuel cutting.

Ten times lower cost per meter (foot)



Low operating cost

Exceptional consumable life and consistent performance deliver more cost-effective results.

- Do more with less power: patented consumable designs enable best in class cut speeds and robust production piercing using lower amperage levels.
- Superior cut quality and consistency minimize high cost secondary operations.
- Advanced consumable technologies including LongLife®, CoolFlow™ and TrueFlow™ significantly increase consumable life to reduce cost per part.

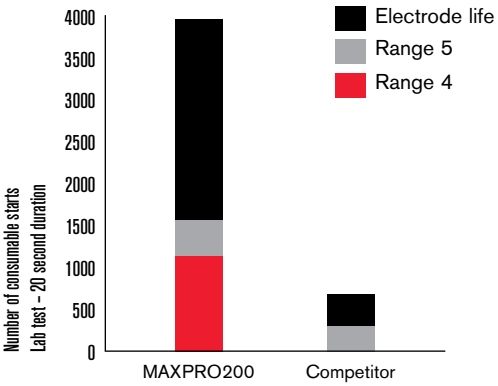
Reliable performance

Engineered and tested using the same proven design process as the HyPerformance® HPRXD® product family for superior reliability in the most demanding cutting environments.

- During development, Hypertherm systems endure rigorous reliability testing procedures equivalent to years of use in extreme operating environments.
- The MAXPRO200 is built with less than half the number of internal parts compared to other systems on the market. Fewer parts provide greater reliability and serviceability.
- Self-diagnostics are performed automatically at startup and continually throughout the cutting process.

Longer consumable life = more cost effective

12 mm (1/2") mild steel
200 A Air/Air, 30 m (100') leads



MAXPRO200
65° handheld torch

MAXPRO200
90° handheld torch

MAXPRO200 straight
machine torch

MAXPRO200 quick-disconnect
machine torch

Specifications

Input voltages	200/208 VAC, 3-PH, 50 Hz, 108/104 A 220 VAC, 3-PH, 50 – 60 Hz, 98 A 240 VAC, 3-PH, 60 Hz, 90 A 380 VAC, 3-PH, 50 Hz, 57 A 400 VAC, CE, 3-PH, 50 – 60 Hz, 54 A 415 VAC, CE, 3-PH, 50 Hz, 52 A 440 VAC, 3-PH, 50 – 60 Hz, 49 A 480 VAC, 3-PH, 60 Hz, 45 A 600 VAC, 3-PH, 60 Hz, 36 A
Output voltage	50–165 VDC
Maximum output current	200 A
Duty cycle rating	100% @ 33 kW, at 40° C (104° F)
Operating temperature	-10° C to 40° C (+14° F to +104° F)
Power factor	0.98 @ 33 kW output
Maximum OCV	360 VDC
Dimensions	102 cm (40.14") H, 69 cm (27.12") W, 105 cm (41.23") L
Weight	335 kg (740 lbs)
Gas supply **Plasma gas** **Shield gas** **Supply gas pressure**	 Air, O_2, N_2 Air, N_2 6,2 +/- 0,7 bar (90 +/- 10 psig)

N30932

Handheld torch and gouging

- 200 A handheld torch capable of cutting up to 75 mm (3") for demolition, scrapping and other heavy-duty cutting demands.
- Drag-cutting consumables make it easy to follow a line or template.
- Metal removal rate on mild steel up to 18.7 kg/hr (41.2 lbs/hr).
- Plasma gouging can replace grinding or carbon arc gouging for many metal-removal applications. Plasma gouging produces less noise and fumes than carbon arc gouging and avoids risks of metallurgic problems from carbon contamination.

Operating data

Virtually dross-free cutting capacity – mild steel	20 mm (3/4")
Production pierce capacity – mild steel	32 mm (1-1/4")
Severance* – mild steel	75 mm (3")
Bevel – 200 amp consumables support 45° bevel capability	

Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min)	Thickness (inches)	Approximate cutting speed (ipm)
Mild steel					
Air plasma	50	1	8050	20 ga	325
Air shield		3	3760	0.135	110
Air plasma	130	6	3865	1/4	150
Air shield		12	2045	1/2	75
Air plasma	200	6	4885	1/4	190
Air shield		12	2794	1/2	110
		20	1415	3/4	60
		25	940	1	35
		32	630	1-1/4	25
		50	215	2	8
O_2 plasma	50	1	6775	20 ga	270
Air shield		3	3650	0.135	130
O_2 plasma	130	6	3925	1/4	150
Air shield		12	2200	1/2	80
O_2 plasma	200	6	6210	1/4	235
Air shield		12	3415	1/2	130
		20	1920	3/4	80
		25	1430	1	55
		32	805	1-1/4	32
		50	270	2	10
Stainless steel					
N_2 plasma	200	12	2260	1/2	80
N_2 shield		20	1190	3/4	50
Air plasma Air shield	200	12 20	3320 1440	1/2 3/4	120 60

* The thickness that can be severed at approximately 125 mm/min (5 ipm) with reduced cut quality. Cutting at severance thickness should be infrequent.

Cut with confidence

- Hypertherm is ISO 9001: 2000 registered.
- Hypertherm's full-system warranty provides complete coverage for one year on the torch and leads and two years on all other system components.
- Hypertherm's plasma power supplies are engineered to deliver industry leading energy efficiency and productivity with power efficiency ratings of 90% or greater and power factors up to 0.98. Extreme energy efficiency, long consumable life, and lean manufacturing lead to the use of fewer natural resources and a reduced environmental impact.

For more information, visit:
www.hypertherm.com

One of Hypertherm's long-standing core values is a focus on minimizing our impact on the environment. Doing so is critical to our, and our customers', success. We are always striving to become better environmental stewards; it is a process we care deeply about.

Greener Cuts

870890

Hypertherm®
Cut with confidence®

Hypertherm®

XPR300™

Unmatched performance. Unbeatable operating cost.


Hypertherm
XPR300

Contents

XPR overview

Unmatched performance. Unbeatable operating cost.

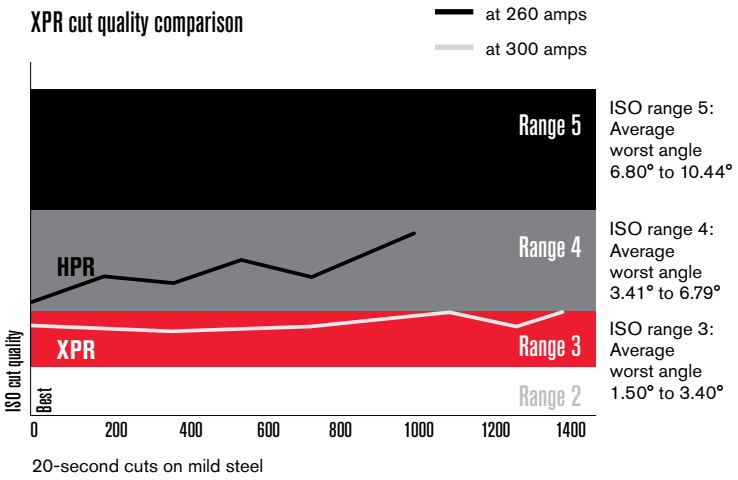
The new XPR300™ represents the most significant advance in mechanized plasma cutting technology, ever. This next generation system redefines what plasma can do by expanding its capabilities and opportunities in ways never before possible. With unmatched X-Definition™ cut quality on mild steel, stainless steel and aluminum, the new XPR300 increases cut speed, dramatically improves productivity and slashes operating costs by over 50%. New ease-of-use features and engineered system optimization make the XPR300 easier to run with minimal operator intervention, while also ensuring optimal performance and unmatched reliability.

Range 2 cuts on 6 mm (1/4") mild steel

Industry leading cut quality – X-Definition

The XPR advances HyDefinition® cut quality by blending new technology with refined processes for next generation, X-Definition cutting on mild steel, stainless steel and aluminum.

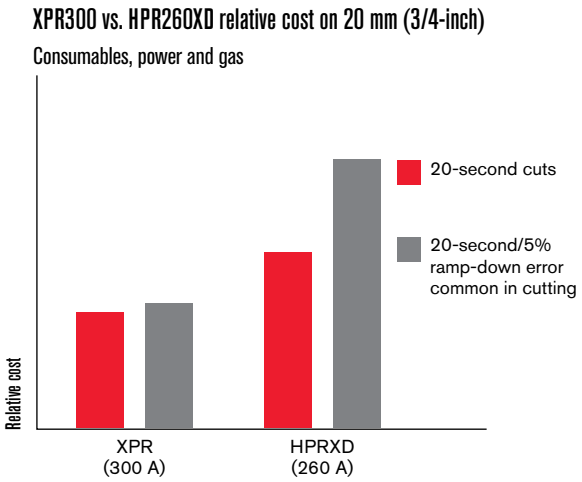
- Consistent ISO range 2 results on thin mild steel
- Extended ISO range 3 cut quality results compared with earlier plasma technology
- Superior stainless steel cut quality across all thickness ranges
- Superior results on aluminum using Vented Water Injection™ (VWI)



20-second cuts on mild steel

Optimized productivity and reduced operating costs

- 300 amps and 63 kW of output power deliver higher cut speeds; up to 15% on thicker materials
- Consumable life increases of over 40% compared with previous systems
- 20% thicker piercing capability on stainless steel and 30% thicker on mild steel
- Operating costs reduced by over 50%

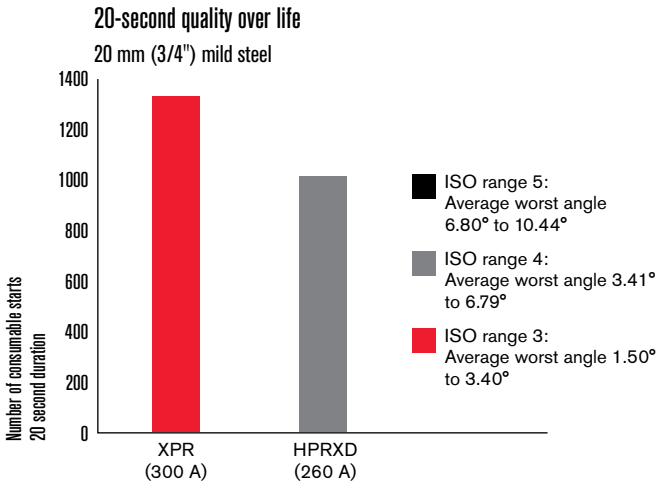


Engineered system optimization

- Increases consumable life 3 times that of competitor's systems by eliminating the impact of ramp down errors
- Reduces the impact of catastrophic electrode blowouts which can damage the torch at high current levels

Ease of use

- Intuitive operation and automatic monitoring redefine ease of use
- Full control of all functions and settings via the CNC
- Automatic system monitoring and specific troubleshooting codes for improved maintenance and service prompts



- EasyConnect™ torch lead and one hand torch-to-receptacle connection for fast and easy change-outs
- QuickLock™ electrode for easy consumable replacement
- WiFi in power supply can connect to mobile devices and LAN for multiple system monitoring and service

Industry leading X-Definition cut quality

Torch and consumable technology

X-Definition™ improves cut quality and consistency on mild steel, expands the application of Hypertherm's pioneering HyDefinition® process to a broad range of non-ferrous applications and greatly enhances it with a number of critical new cutting technologies.

Expanded HyDefinition technology

Hypertherm's pioneering HyDefinition® technology, featuring a unique two-piece vented nozzle design, aligns and focuses the plasma arc, increasing arc stability and energy density for more consistent, precise cut quality. Previously used primarily on mild steel applications, this foundational technology is now applied to the full range of non-ferrous cutting processes for cleaner, sharper, more consistent edge quality on stainless steel and aluminum.

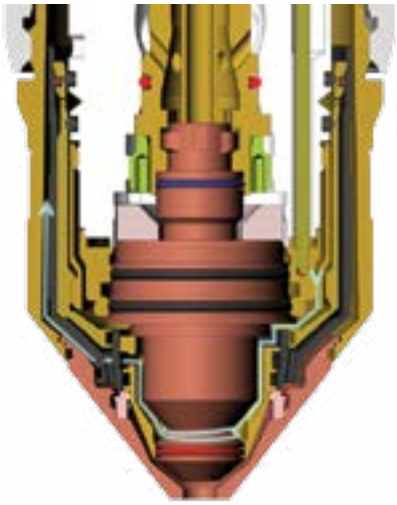
Vented Water Injection (VWI)

This patent pending process features a vented N_2 plasma and an H_2O shield. Edges are square, angularity is reduced and surface finish is excellent on non ferrous materials, especially aluminum.

Cool nozzle

Patent pending feature on the 300-amp oxygen process provides liquid cooling directly to the nozzle bore. This cooling is a significant factor in increasing cut quality over the life of the consumables by over 40%.

Cool nozzle



Vent-to-shield technology

This new technology mixes hydrogen reclaimed from the vented plasma gas with the shield gas to reduce angularity and deliver more consistent edge color on stainless steel up to 12 mm (1/2").

Plasma dampening

Patent pending plasma dampening delivers increased arc density and cut speeds on thin stainless while maintaining arc stability and smoother cut edges.

PowerPierce

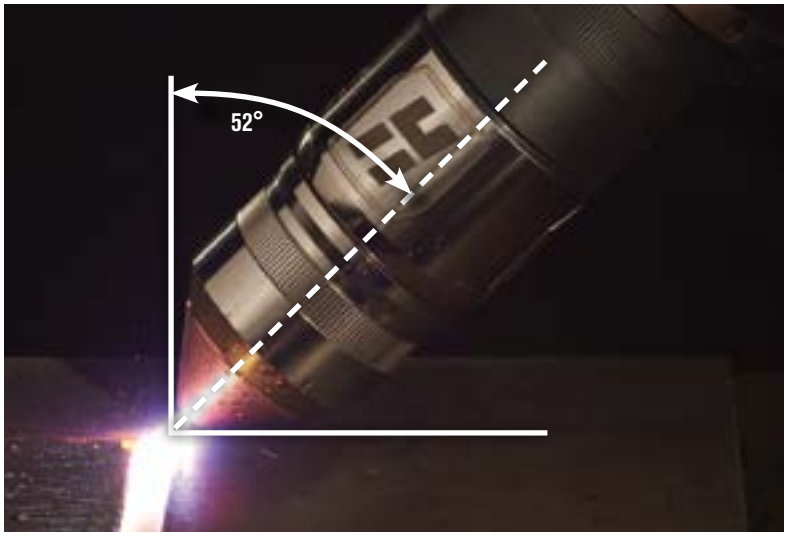
Patented PowerPierce® liquid cooled shield technology repels molten metal during piercing allowing production piercing of 45 mm (1-3/4") on mild steel all the way up to 50 mm (2") when using Hypertherm's exclusive argon-assist process.

Advanced arc stability

Superior arc steadiness from a modified shield gas impingement improves arc stability when coming out of a pierce hole or out of an acute angle delivering reduced lead-in lengths and improved cut quality.

Improved torch geometry

Superior bevel capability and performance thanks to an enhanced tapered torch design that features a 76° included angle and bevel rotation of up to 52°.



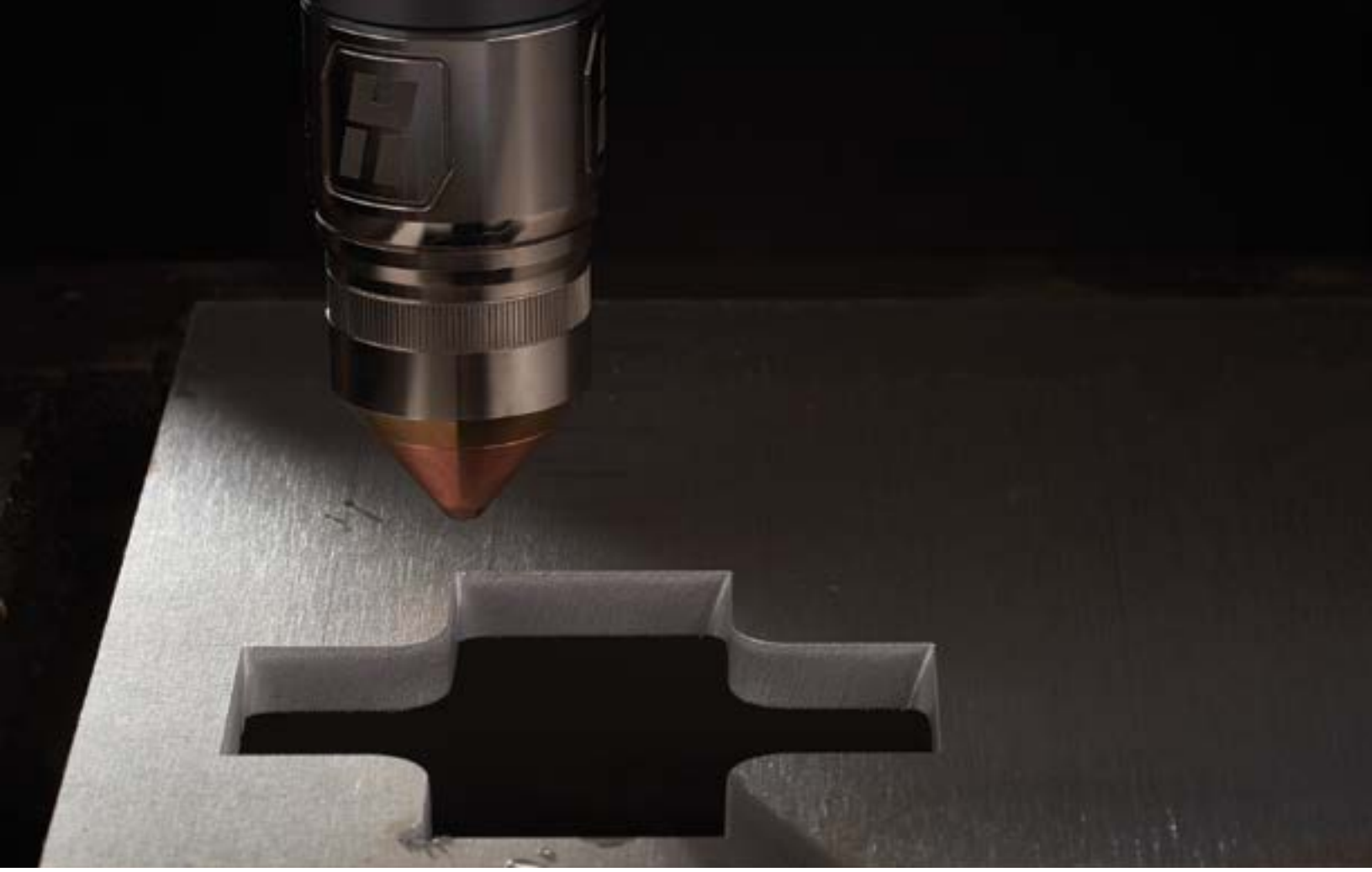
True Hole technology

XPR™ True Hole® technology incorporates new arc segmentation protocols to automatically produce bolt hole quality on mild steel with diameter to thickness ratios of 1:1 up to 2:1.

Process control and delivery.

State-of-the-art process control through a completely new concept in gas and fluid delivery. Three console options – Core™, Vented Water Injection™ (VWI) and OptiMix™ – offer unmatched mild steel cut quality with each console delivering successively enhanced cutting capabilities on stainless steel and aluminum. All consoles can be fully controlled through the CNC for high productivity and ease of use.

Gas-connect console gases/fluids			
	Core	Vented Water Injection (VWI)	OptiMix
O_2/N_2/Air	●	●	●
F5/Ar/H_2O		●	●
H_2-N_2-Ar mixing			●



Core™ console

Unmatched mild steel cutting performance and superior angularity and edge finish on stainless steel up to 12 mm (1/2"). This is delivered through a new N_2 HDi™ process that prevents the mixing of air into the plasma gas, creating an improved, brighter edge finish.

Vented Water Injection™ (VWI) console

All Core console capabilities plus a more than 10% increase in piercing thickness with argon-assist. Significantly enhanced stainless steel and aluminum capabilities are delivered with the addition of F_5 HDi processes and patent pending Vented Water Injection (VWI).

OptiMix™ console

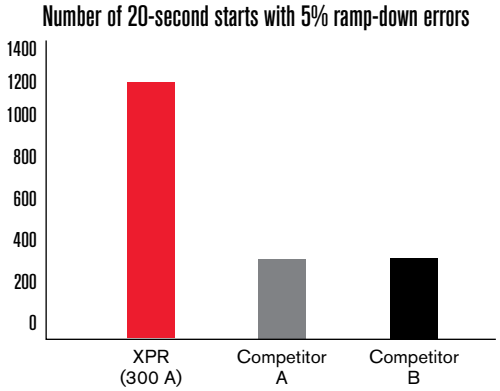
All the capabilities of the Core and VWI consoles plus discrete 3-gas mixing – Ar, H_2, and N_2 – for the world's most flexible, premium stainless steel and aluminum cutting capability.

Optimized productivity and reduced operating costs

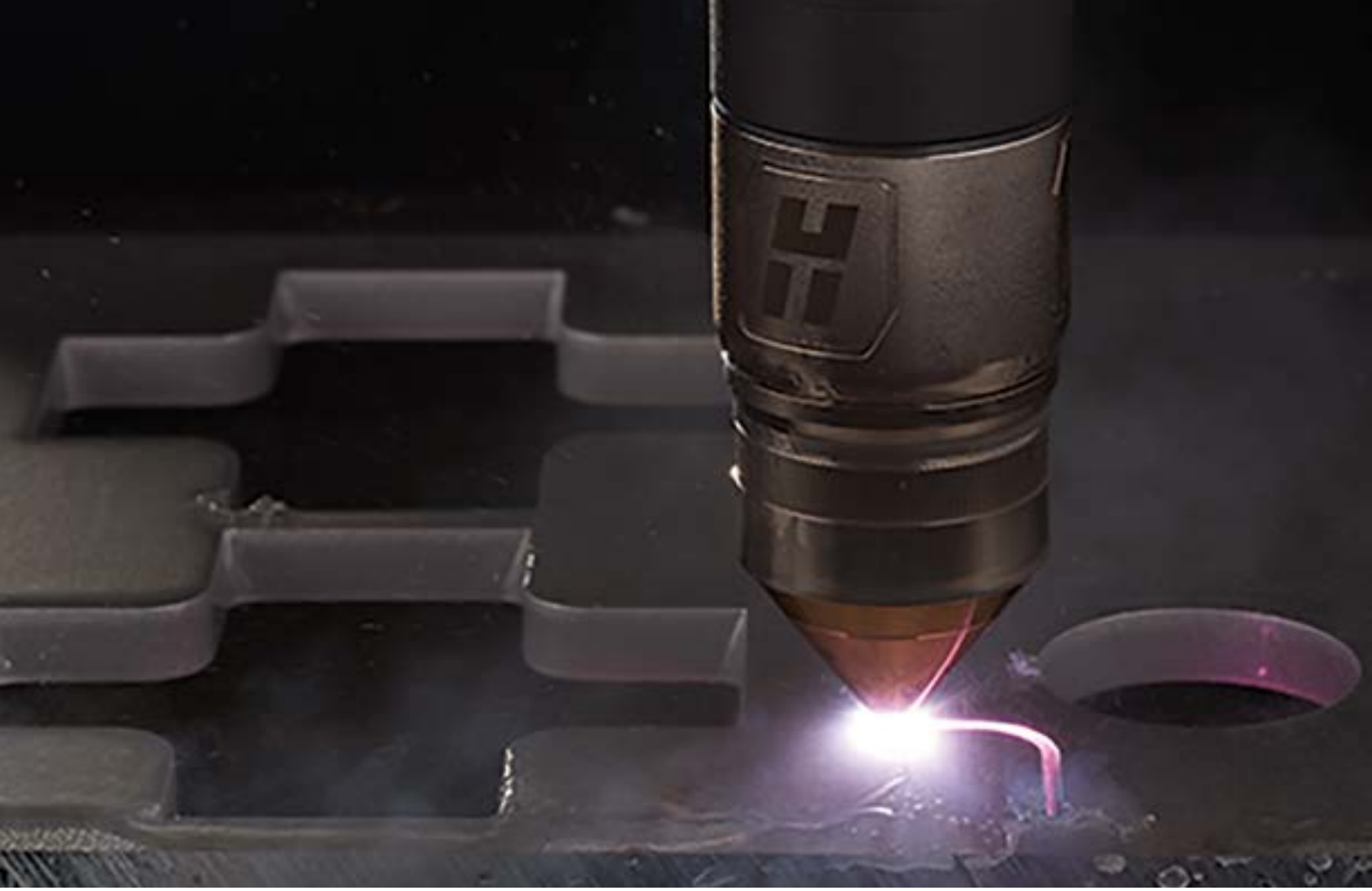
Building on Hypertherm's industry-leading productivity technologies, XPR™ delivers faster cut speeds, higher quality cuts that reduce or eliminate secondary operations and increased consumable life with quicker set up time. These combine to further slash plasma system operating costs.

Technology benefits

- 300 amps and 63 kW of output power deliver higher cut speeds for superior productivity.
- A valve in the torch receptacle delivers more rapid and precise control over gas flows for significantly longer oxygen process life and a greatly accelerated ramp down process. This elimination of ramp down errors in most applications enables a consumable life span nearly 3 times longer than any other system.
- New Cool nozzle™ flow technology contributes to consumable life increases of over 40% with greater ISO range 3 results than ever before.
- Increased power and argon-assist piercing delivers 30% thicker piercing capacity on mild steel for further productivity benefits.



		XPR300	
Maximum output power		63 kW	
100% duty arc voltage		210 V	
Cut chart thickness		**mm**	**inches**
Pierce capacity	Mild steel (argon-assist)	50	2
	Mild steel (standard O_2)	45	1-3/4
	Stainless steel	38	1-1/2
	Aluminum	38	1-1/2
Severance capacity	Mild steel	80	3
	Stainless steel	75	3
	Aluminum	50	2



Engineered system optimization

XPR™ is engineered to deliver the highest quality cuts and optimal system performance automatically. Advanced power supply technology delivers highly responsive, rapid system feedback, and automatically intervenes to eliminate events that negatively impact system efficiency and consumable life.

Improved operating and troubleshooting information

Sensors in the power supply deliver refined diagnostic codes and significantly enhanced system monitoring information. This reduces troubleshooting time and provides proactive system maintenance data for improved system optimization.

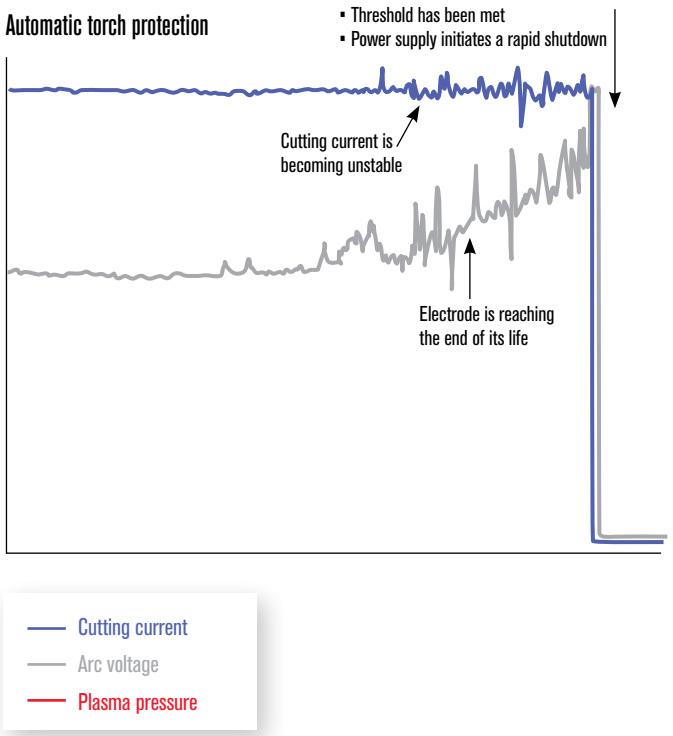
XPR's cutting-edge power supply features advanced chopper circuitry that instantaneously senses and responds to changes in arc voltage and current settings. This sophisticated Arc response technology™ delivers important benefits that reduce operating costs and increase productivity.

Arc response technology™

Automatic torch protection

The chopper module senses the onset of catastrophic electrode blowout failure and shuts down the system, protecting the torch from potential damage and enabling improved consumable utilization.

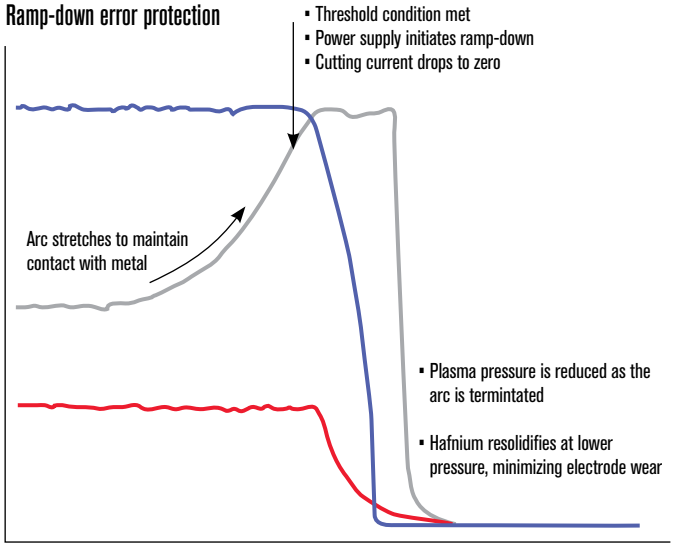
- Prevents torch failure
- Reduces operating cost



Automatic ramp-down error protection

The chopper module senses when a cut is about to end in an uncontrolled manner – without proper ramp down of current and gas flow. It automatically initiates a rapid ramp-down sequence protecting the electrode, dramatically extending consumable life – over 3 times that of systems that don't have this feature.

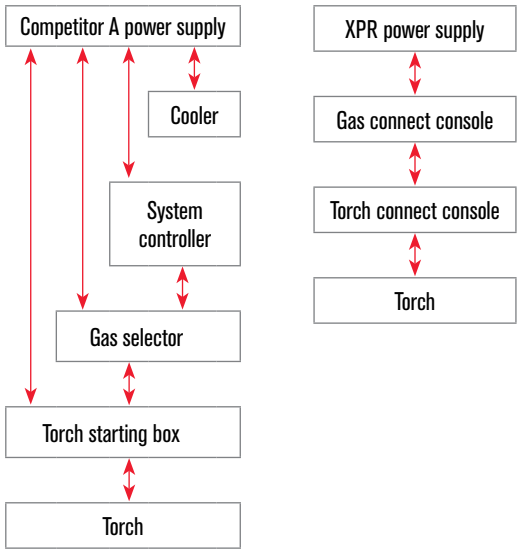
- Protects electrode
- Improves realized consumable life
- Reduces operating cost



Ease of use

XPR™ sets the new standard for achieving advanced system performance easily. From system set up and installation to connectivity and process optimization, XPR's intuitive operation and automatic system monitoring redefine easy plasma cutting.

- Fewer consoles and connections reduce components and complexity.
- Torch lead includes the EasyConnect™ tool-less connection to the TorchConnect™ console, reducing set up time and simplifying replacement.



- All consoles feature advanced autogas capability enabling all cutting processes to be selected and driven directly from the CNC.
- Patent pending QuickLock™ electrode delivers easy ¼ turn tightening, reducing job setup time.
- Hypertherm's easiest and fastest torch disconnect design enables a rapid, one handed torch change.

- Built in WiFi connects operating and monitoring abilities to the mobile device dashboard.
- Easy to navigate and read.
- Allows the selection of cutting processes and the monitoring of multiple systems from most mobile devices and laptops.

Environmental benefits

The engineering mission at Hypertherm is to develop innovative technologies, products, and solutions that provide superior value to our customers, our owners, and our planet. We consider it critical to our success to reduce the environmental impact of everything we do. The XPR300 system has been designed to be more efficient and less wasteful by reducing consumable use, energy and the carbon footprint.

PRODUCTIVITY

- Better reliability for increased uptime
- 64% less consumable copper material used per foot of cut

ENVIRONMENT

- Better designed for e-waste removal
- Carbon impact of magnetics is 77% lower
- Packaging is 100% recyclable
- System is 99.6% recyclable

ENERGY EFFICIENCY

- 62% higher power to weight ratio
- Cuts 14% faster

Greener Cuts™

Reliability

XPR's engineering development is the culmination of tens of thousands of hours in testing, data analysis, and system tuning. Our development optimizes your uptime ensuring reliable machine performance even under highly stressful field conditions. The XPR™ is Hypertherm's smartest mechanized plasma system to date. On-board sensors continually monitor current, pressure, temperature, flow and compare to specifications during your operation to ensure optimum performance.

Specifications

General	
Maximum open-circuit voltage	360 VDC
Maximum output current	300 A
Output voltage	50 VDC–210 VDC
Duty cycle rating	100% at 63 kW, 40° C (104° F)
Operational ambient temperature range	-10° C–40° C (14° F–104° F)
Power factor	0.98 at 63 kW
Cooling	Forced air (Class F)
Insulation	Class H
EMC emissions classification (CE models only)	Class A
Lift points	Top lift eye
Bottom lift truck slots	Lift eye weight rating 680 kg (1,500 lb.)

Console	Cutting gases	Current (A)	Cut chart thickness (mm)	Approximate cutting speed (mm/min)	Cut chart thickness (in.)	Approximate cutting speed (ipm)
Mild steel						
Core, VWI, and OptiMix	O_2 plasma O_2 shield	30	0.5 3 5	5348 1153 521	0.018" 0.135" 3/16"	215 40 30
	O_2 plasma Air shield	80	3 6 12	5582 3048 1405	0.105" 1/4" 1/2"	225 110 55
	O_2 plasma Air shield	130	3 10 38	6502 2680 256	0.135" 3/8" 1-1/2"	240 110 10
	O_2 plasma Air shield	170	6 12 25 50	5080 3061 1175 267	1/4" 1/2" 1" 2"	200 115 45 10
	O_2 plasma Air shield	300	12 25 50 80	3940 1950 560 165	1/2" 1" 2" 3"	155 75 21 7
Stainless steel						
Core, VWI, and OptiMix	N_2 plasma N_2 shield	40	0.8 3 6	6100 2683 918	0.036" 0.105" 1/4"	240 120 32
VWI and OptiMix	F5 plasma N_2 shield	80	3 6 12	4248 1916 864	0.135 1/4" 1/2"	140 70 34
OptiMix	H_2-Ar-N_2 plasma N_2 shield	170	10 12 38	1975 1735 256	3/8" 1/2" 1-1/2"	80 65 10
	H_2-Ar-N_2 plasma N_2 shield	300	12 25 50 75	2038 1040 387 162	1/2" 1" 2" 3"	80 40 17 6
VWI and OptiMix	N_2 plasma H_2O shield	300	12 25 50	2159 1302 403	1/2" 1" 2"	85 50 15
Aluminum						
Core, VWI, and OptiMix	Air plasma Air shield	40	1.5 3 6	4799 2596 911	0.036 1/8" 1/4"	240 85 32
VWI and OptiMix	N_2 plasma H_2O shield	80	3 6 10	3820 2203 956	1/8" 1/4" 1/2"	140 80 28
	N_2 plasma H_2O shield	130	6 10 20	2413 1702 870	1/4" 3/8" 3/4"	95 70 35
	N_2 plasma H_2O shield	300	12 25 50	2286 1302 524	1/2" 1" 2"	90 50 20
OptiMix	H_2-Ar-N_2 plasma N_2 shield	300	12 25 50	3810 2056 391	1/2" 1" 2"	150 80 15

This does not represent a complete list of processes or thicknesses that are available

Nearly 50 years of Shaping Possibility

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

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

100% employee ownership matters

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

Shaping what's possible the world over

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

Key elements of the Hypertherm formula include:

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

PLASMA | LASER | WATERJET | AUTOMATION | SOFTWARE | CONSUMABLES

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