HyPerformance® Plasma

HPR400XD®

with PowerPierce™ shield technology for extreme piercing capability



Superior cut quality and consistency
Maximized productivity
Minimized operating costs
Unmatched reliability

Hypertherm®

HyPerformance Plasma



HPR400XD

The HPR400XD is the fastest, thickest and most versatile HyPerformance Plasma system available on the market.

Hypertherm has spent more than four decades developing over 70 patented plasma technologies to provide customers with exceptional performance they can count on. With thousands of HyPerformance Plasma systems sold around the world, the HPR product family has become the plasma system of choice for customers who demand the most consistent cut quality, highest productivity, lowest operating cost and unmatched reliability.

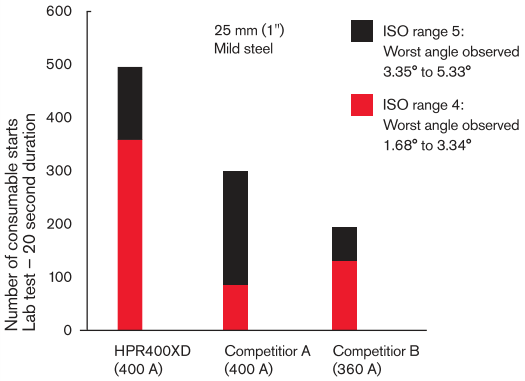


Superior cut quality and consistency

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

- Patented HyDefinition technology aligns and focuses the plasma arc for more powerful precision cutting up to 80 mm (3.2").
- Patented system technologies deliver more consistent cut quality over a longer period of time than other systems available on the market.

Cut quality over life



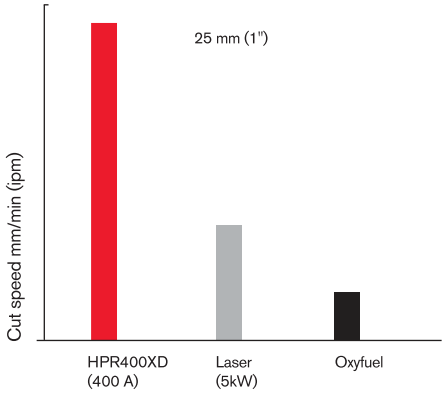
- Hypertherm consumables are manufactured with the highest quality standards and latest patented technology to ensure consistent performance.
- HyPerformance Plasma cuts stainless steel from thin to thick with a mirror-like finish.

Maximized productivity

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

- HyPerformance HPR400XD delivers HyDefinition precision at unprecedented speeds.

HyDefinition plasma cutting is 2 – 5 times faster



- Rapid cut-to-cut cycle time results in less downtime between cuts.
- Quick-disconnect torch and intuitive user interface reduce set-up time.
- Long consumable life and high system reliability maximize productive “arc-on” time.
- HyPerformance HPR400XD cuts, bevels, and marks a variety of metals, making it the one system that consistently does it all.

Technology that delivers

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

HyDefinition technology

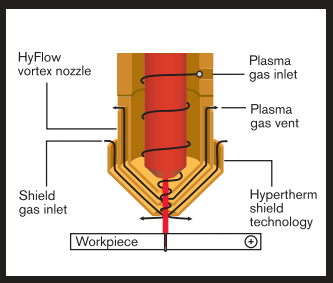
- Vented nozzle technology aligns and focuses the plasma arc.
- HyDefinition technology enables powerful precision cutting for superior quality and consistency.

LongLife technology

- Ramps electrical current and gas pressure up and down in a tightly controlled manner.
- To reduce electrode and nozzle erosion, LongLife technology delivers consistent HyDefinition cut quality over the longest period of time for a significant reduction in operating cost and downtime.

PowerPierce technology

- Liquid cooled shield technology repels molten metal during piercing.
- PowerPierce technology enables robust production pierce capability up to 50 mm (2") mild steel.



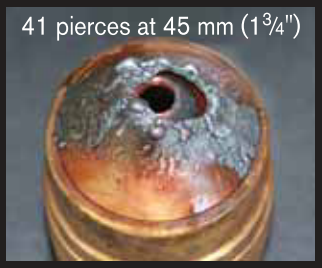
Patented HyDefinition cutting for consistent quality



Consistent from first cut to last



HPR400XD with PowerPierce technology



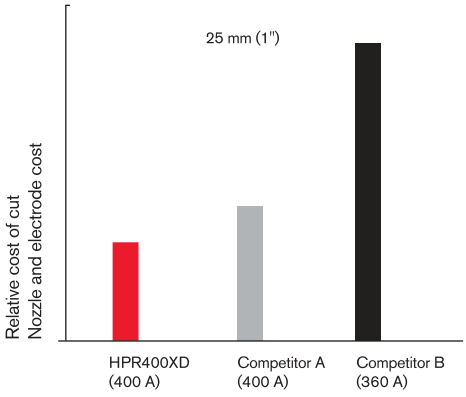
Competitor A without PowerPierce technology

Minimized operating cost

HyPerformance Plasma lowers operating cost and improves profitability.

- Patented LongLife® technology significantly increases consumable life and enables consistent HyDefinition cut quality over the longest period of time.
- Hypertherm consumables are manufactured with the highest quality standards and latest patented technology to ensure consistently longer life.
- The combination of LongLife technology and high cut speeds enables Hypertherm systems to produce more cut parts per set of consumables, reducing your cost per part.

Operating cost



Unmatched reliability

Extensive testing, backed by more than four decades of experience, guarantees the Hypertherm quality you can count on.

- During development, the HyPerformance systems endure rigorous reliability testing procedures that are equivalent to over 10 years of use in extreme operating environments.
- Hypertherm's engineers leveraged decades of experience to produce a robust and simple system with 50% fewer parts than other systems on the market. Studies have shown that fewer parts directly results in greater reliability.
- Self-diagnostics run automatically at startup and continually while cutting to ensure that the system operates at peak performance.

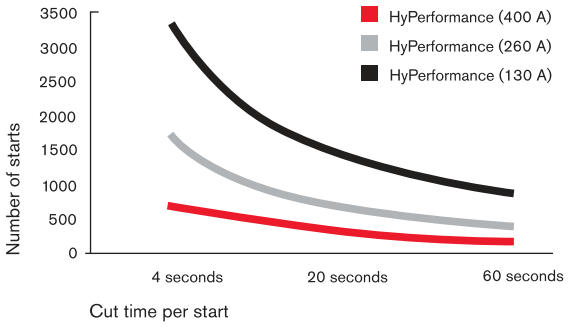


Specifications

Input voltages	VAC	Hz	Amps
	200/208	50/60	262/252
	220	50/60	238
	240	60	219
	380	50	138
	400	50	131
	440	50/60	120
	480	60	110
	600	60	88
Output voltage	200 VDC		
Output current	400 A		
Duty cycle	100% at 40° C (104° F) at 80 kW		
Maximum OCV	360 VDC		
Dimensions	118 cm (46.4") H, 88 cm (34.7") W, 126 cm (49.7") L		
Weight	851 kg (1877 lbs)		
Gas supply Plasma gas Shield gas Gas pressure	 O_2, N_2, F5*, H35**, Air, Ar N_2, O_2, Air, Ar 8.3 bar (120 psi) Manual gas console 8.0 bar (115 psi) Automatic gas console		

*F5 = 5% H, 95% N_2
**H35 = 35% H, 65% Ar

Longer consumable life





- Hypertherm is ISO 9001:2000 registered.
- Hypertherm's full-system warranty: complete coverage for two years on all system components and one year on the torch.

Operating data

Virtually dross-free cutting capacity – mild steel 38 mm (1 1/2")
Production pierce capacity – mild steel 50 mm (2")
Maximum cutting capacity (edge start) – mild steel 80 mm (3.2")

Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min.)	Thickness (inches)	Approximate cutting speed (ipm)
Mild steel	30	0.5	5355	.018	215
O_2 plasma		3	1160	.135	40
O_2 shield		6	665	1/4	25
O_2 plasma	80	3	6145	.135	180
Air shield		6	3045	1/4	110
		20	545	3/4	25
O_2 plasma	130†	6	4035	1/4	150
Air shield		10	2680	3/8	110
		25	550	1	20
O_2 plasma	200	6	5248	1/4	200
Air shield		12	3061	1/2	115
		25	1167	1	45
		50	254	2	10
O_2 plasma	260†	10	4440	3/8	180
Air shield		20	2170	3/4	90
		64	195	2 1/2	8
O_2 plasma	400†	12	4430	1/2	170
Air shield		25	2210	1	85
		50	795	2	30
		80	180	3	10
Stainless steel	45	1	5740	.036	240
F5 plasma		2.5	2510	.105	90
N_2 shield		6	845	1/4	30
F5 plasma	80	4	2180	.135	105
N_2 shield		6	1225	1/4	45
		10	560	3/8	25
H35 plasma	130†	10	980	3/8	40
N_2 shield		12	820	1/2	30
		25	260	1	10
H35 plasma	200	10	1620	3/8	65
N_2 shield		12	1450	1/2	55
		20	820	3/4	35
H35 plasma	260†	12	1710	1/2	65
N_2 shield		20	1085	3/4	45
		25	785	1	30
		50	270	2	10
H35 plasma	400†	20	1100	3/4	45
N_2 shield		40	600	1 1/2	25
		60	280	2 1/2	10
Aluminum	45	1.5	4420	.048	220
Air plasma		4	2575	.135	110
Air shield		6	1690	1/4	60
H35 plasma	130†	12	1455	1/2	55
N_2 shield		20	940	3/4	40
		25	540	1	20
H35 plasma	200	10	4400	3/8	180
N_2 shield		12	3800	1/2	140
		20	1450	3/4	70
H35 plasma	260†	12	5160	1/2	190
N_2 shield		20	2230	3/4	90
		50	390	2	14
H35 plasma	400†	20	2420	3/4	100
N_2 shield		40	1190	1 1/2	50
		80	210	3	10

Note: Take care in comparison: Competitors often show maximum cutting speeds, rather than speeds that deliver the best cuts, as shown above. Cut speeds listed above deliver best cut quality for a given process, but cut speeds can be up to 50% faster.

The operating data chart does not list all processes available for the HPR400XD. Please contact Hypertherm for more information.

† Consumables support up to 45° bevel capability.

Hypertherm®

www.hypertherm.com

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