Hupgitheim®

HyPerformance Plasma HPR400x0*

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.

Operating data

Mild	steel	cut	car	nacity
IVIIIU	SIEEI	Cui	Car	ιαυπιν

Dross free	38 mm (1½")		
Production (pierce)	50 mm (2")		
Severance (edge starts)	80 mm (3.2")		
Stainless steel cut capacity			
Production (pierce)	45 mm (1¾")		
Severance (edge starts)	80 mm (3.2")		
Aluminum cut capacity			
Production (pierce)	38 mm (1½")		
Severance (edge starts)	80 mm (3.2")		

Key advantages

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.

Maximized productivity

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

Minimized operating cost

HyPerformance Plasma lowers operating cost and improves profitability.

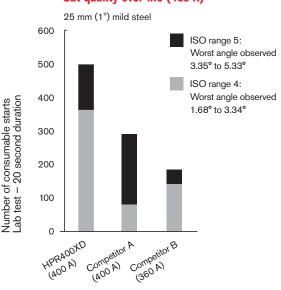
 Patented LongLife® technology significantly increases consumable life and enables consistent HyDefinition cut quality over the longest period of time.

Unmatched reliability

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



Cut quality over life (400 A)



Specifications

Input voltages	VAC	Hz	Amps		
	200/208	50/60	262/252		
	220	50/60	238		
	240	60	219		
	380	50/60	138		
	400	50/60	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	O ₂ , N ₂ , F5*, H35**, Air, Ar				
Shield gas	N ₂ , O ₂ , Air, Ar				
Gas pressure 8.3 bar (120 psi) Manual gas console					
8.0 bar (115 psi) Automatic gas console					
1	' '				

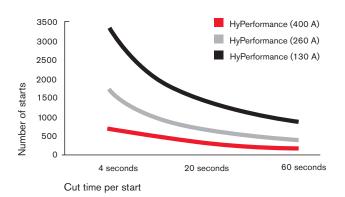
^{*} F5 = 5% H, 95% N₂







Longer consumable life



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

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Operating data

Virtually dross-free cutting capacity - mild steel 38 mm (1½") Production pierce capacity - mild steel 50 mm (2") Maximum cutting capacity (edge start) - mild steel 80 mm (3.2")

Material	Current	Thickness	Approximate cutting speed	Thickness	Approximate cutting speed
	(amps)	(mm)	(mm/min.)	(inches)	(ipm)
Mild steel	30	0.5	5355	.018	215
O ₂ plasma O ₂ shield		3 6	1160 665	.135 ¹/₄	40 25
-	- 00				
O ₂ plasma Air shield	80	3 6	6145 3045	.135 ¹/₄	180 110
Air snieid		20	545	3/4	25
O plaama	130 [†]	6	4035	1/4	150
O ₂ plasma Air shield	130	10	2680	3/8	110
7 til Officia		25	550	1	20
O ₂ plasma	200	6	5248	1/4	200
Air shield	200	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	2½	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 50	785 270	1 2	30 10
HOE	400 [†]			3/4	
H35 and N ₂ plasma	400 [†]	20 40	1810 720	1½	75 30
N ₂ shield		80	190	3	10
Aluminum	45	1.5	4420	.048	220
Air plasma	45	4	2575	.135	110
Air shield		6	1690	1/4	60
H35 plasma	130 [†]	12	1455	1/2	55
N ₂ shield	100	20	940	3/4	40
2		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	1½	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.

^{**} H35 = 35% H, 65% Ar