

# 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.

### Operating data

#### Mild steel cut capacity

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.

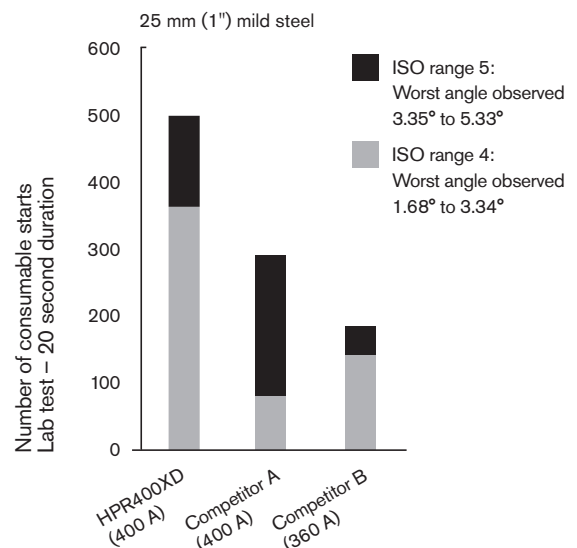
- Patented LongLife® technology significantly increases consumable life and enables consistent HyDefinition cut quality over the longest period of time.

#### 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)



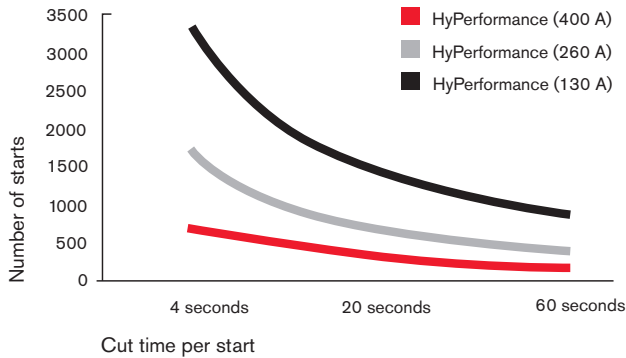
## Specifications

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 <sub>2</sub> , N <sub>2</sub> , F5*, H35**, Air, Ar		
Shield gas	N <sub>2</sub> , O <sub>2</sub> , Air, Ar		
Gas pressure	8.3 bar (120 psi) Manual gas console 8.0 bar (115 psi) Automatic gas console		

\* F5 = 5% H, 95% N<sub>2</sub>  
\*\* H35 = 35% H, 65% Ar



### 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.

# Hypertherm®

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[www.hypertherm.com](http://www.hypertherm.com)

## 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 (amps)	Thickness (mm)	Approximate cutting speed (mm/min.)	Thickness (inches)	Approximate cutting speed (ipm)	
<b>Mild steel</b>	30	0.5	5355	.018	215	
		O <sub>2</sub> plasma	3	1160	.135	40
		O <sub>2</sub> shield	6	665	¼	25
	80	O <sub>2</sub> plasma	3	6145	.135	180
		Air shield	6	3045	¼	110
			20	545	¾	25
	130†	O <sub>2</sub> plasma	6	4035	¼	150
		Air shield	10	2680	⅜	110
			25	550	1	20
	200	O <sub>2</sub> plasma	6	5248	¼	200
		Air shield	12	3061	½	115
			25	1167	1	45
		50	254	2	10	
260†	O <sub>2</sub> plasma	10	4440	⅜	180	
	Air shield	20	2170	¾	90	
		64	195	2½	8	
400†	O <sub>2</sub> plasma	12	4430	½	170	
	Air shield	25	2210	1	85	
		50	795	2	30	
		80	180	3	10	
<b>Stainless steel</b>	45	1	5740	.036	240	
		F5 plasma	2.5	2510	.105	90
		N <sub>2</sub> shield	6	845	¼	30
	80	F5 plasma	4	2180	.135	105
		N <sub>2</sub> shield	6	1225	¼	45
			10	560	⅜	25
	130†	H35 plasma	10	980	⅜	40
		N <sub>2</sub> shield	12	820	½	30
			25	260	1	10
	200	H35 plasma	10	1620	⅜	65
		N <sub>2</sub> shield	12	1450	½	55
			20	820	¾	35
260†	H35 plasma	12	1710	½	65	
	N <sub>2</sub> shield	20	1085	¾	45	
		25	785	1	30	
		50	270	2	10	
400†	H35 and N <sub>2</sub> plasma	20	1810	¾	75	
		40	720	1½	30	
	N <sub>2</sub> shield	80	190	3	10	
<b>Aluminum</b>	45	1.5	4420	.048	220	
		Air plasma	4	2575	.135	110
		Air shield	6	1690	¼	60
	130†	H35 plasma	12	1455	½	55
		N <sub>2</sub> shield	20	940	¾	40
			25	540	1	20
	200	H35 plasma	10	4400	⅜	180
		N <sub>2</sub> shield	12	3800	½	140
			20	1450	¾	70
	260†	H35 plasma	12	5160	½	190
		N <sub>2</sub> shield	20	2230	¾	90
			50	390	2	14
400†	H35 plasma	20	2420	¾	100	
	N <sub>2</sub> 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.