

Hypertherm®

HyPerformance® Plasma HPR400XD®

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



Mild steel cut capacity

Dross free*	38 mm (1-1/2")
Production pierce	50 mm (2")
Maximum cutting capacity	80 mm (3.2")

Stainless steel cut capacity

Production pierce	45 mm (1-3/4")
Maximum pierce**	75 mm (3")
Severance	80 mm (3.2")

Aluminum cut capacity

Production pierce	38 mm (1-1/2")
Maximum cutting capacity	80 mm (3.2")

* Feature and material type can influence dross free performance.

**Maximum pierce requires use of an autogas console and controlled motion process. See technical documentation for details.

Superior cut quality and consistency

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

- HyDefinition® technology aligns and focuses the plasma arc for more powerful precision mild steel cutting up to 80 mm (3.2").
- New HDi™ technology delivers HyDefinition cut quality on thin stainless steel from 3 to 6 mm (12 ga. to 1/4").
- 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.

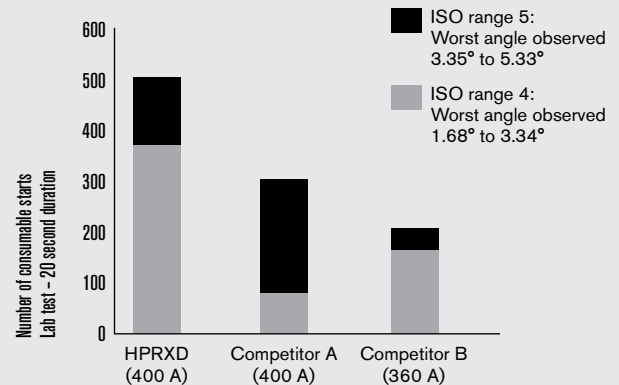
- LongLife® technology significantly increases consumable life and enables consistent HyDefinition cut quality over the longest period of time.

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)

25 mm (1") mild steel



Superior cut quality on mild steel and stainless steel



Specifications

Input voltages (3-PH) and currents	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		
Power factor	0.98 @ 80 kW output		
Maximum OCV	360 VDC		
Dimensions	118 cm (46.4") H, 88 cm (34.7") W, 126 cm (49.7") L		
Weight with torch	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 bar (115 psi) Automatic gas console		

* F5 = 5% H, 95% N₂

**H35 = 35% H, 65% Ar



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.

Operating data

Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min)	Thickness (inches)	Approximate cutting speed (ipm)
Mild steel	30	0.5	5355	.018	215
		3	1160	.135	40
		6	665	1/4	25
O ₂ plasma O ₂ shield	80†	3	6145	.135	180
		12	1410	1/2	50
		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	260†	10	4440	3/8	180
		20	2170	3/4	90
		32	1135	1-1/2	35
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	60	3	2770	0.105	120
		4	2250	0.135	95
		5	1955	3/16	80
		6	1635	1/4	60
H35 and N ₂ plasma* N ₂ shield	130†	6	1835	1/4	70
		12	875	1/2	30
		20	305	3/4	15
H35 and N ₂ plasma* N ₂ shield	260†	10	2190	3/8	90
		12	1790	1/2	65
		20	1320	3/4	55
H35 plasma N ₂ shield	400†	20	1100	3/4	45
		50	400	2	15
		60	280	2-1/2	10
H35 and N ₂ plasma* N ₂ shield	400†	20	1810	3/4	75
		50	520	2	20
		80	180	3	10
Aluminum	130	6	2215	1/4	85
		12	1455	1/2	55
		20	815	3/4	35
N ₂ plasma* Air shield	260	12	4290	1/2	160
		20	1940	3/4	80
		32	940	1-1/4	40
H35 and N ₂ plasma* N ₂ shield	400	12	5190	1/2	200
		50	1000	2	40
		80	210	3	10

HDI

† Consumables support up to 45° bevel capability.

* H35 and N₂ mixed plasma gas requires the use of an autogas console.

The operating data chart does not list all processes available for the HPR400XD.

Please contact Hypertherm for more information.

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.



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