# Hypertherm<sup>®</sup>

# 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
Production pierce	50 mm
Maximum cutting capacity	80 mm
Stainless steel cut capacity	
Production pierce	45 mm
Maximum pierce**	75 mm
Severance	80 mm
Aluminum cut capacity	
Production pierce	38 mm
Maximum cutting capacity	80 mm

<sup>\*</sup> Feature and material type can influence dross free performance.

#### 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.
- New HDi™ technology delivers HyDefinition cut quality on thin stainless steel from 3 to 6 mm.
- 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.



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(400 A)

# Superior cut quality on mild steel and stainless steel

(400 A)



<sup>\*\*</sup>Maximum pierce requires use of an autogas console and controlled motion process.

See technical documentation for details.

# **Specifications**

Input voltages (3-PH) and currents	VAC 200/208 220 240 380 400 440 480 600	Hz 50/60 50/60 60 50/60 50/60 50/60 60	Amps 262/252 238 219 138 131 120 110 88	
Output voltage	200 VDC			
Output current	400 A			
Duty cycle	100% at 40°C at 80 kW			
Power factor	0,98 @ 80 kW output			
Maximum OCV	360 VDC			
Dimensions	118 cm H, 88 cm W, 126 cm L			
Weight with torch	851 kg			
Gas supply Plasma gas Shield gas Gas pressure	O <sub>2</sub> , N <sub>2</sub> , F5*, H35**, Air, Ar N <sub>2</sub> , O <sub>2</sub> , Air, Ar 8,3 bar Manual gas console 8 bar Automatic gas console			

\*  $F5 = 5\% H, 95\% N_2$ \*\* 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

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Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min)
Mild steel O <sub>2</sub> plasma O <sub>2</sub> shield	30	0.5 3 6	5355 1160 665
$0_2$ plasma Air shield	80 <sup>+</sup>	3 12 20	6145 1410 545
${\sf O_2}$ plasma Air shield	130†	6 10 25	4035 2680 550
$O_2$ plasma Air shield	260 <sup>+</sup>	10 20 32	4440 2170 1135
O <sub>2</sub> plasma Air shield	400 <sup>+</sup>	12 25 50 80	4430 2210 795 180
<b>Stainless steel</b> F5 plasma N <sub>2</sub> shield	60	3 4 5 6	2770 2250 1955 1635
H35 and N <sub>2</sub> plasma* N <sub>2</sub> shield	130†	6 12 20	1835 875 305
H35 and N <sub>2</sub> plasma* N <sub>2</sub> shield	260 <sup>+</sup>	10 12 20	2190 1790 1320
${ m H35~plasma}$ ${ m N_2~shield}$	400 <sup>+</sup>	20 50 60	1100 400 280
H35 and N <sub>2</sub> plasma* N <sub>2</sub> shield	400 <sup>+</sup>	20 50 80	1810 520 180
<b>Aluminum</b> H35 and N <sub>2</sub> plasma* N <sub>2</sub> shield	130	6 12 20	2215 1455 815
N <sub>2</sub> plasma* Air shield	260	12 20 32	4290 1940 940
$\mbox{H35}$ and $\mbox{N}_{2}$ plasma* $\mbox{N}_{2}$ shield	400	12 50 80	5190 1000 210

<sup>†</sup>Consumables support up to 45° bevel capability.

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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<sup>\*</sup> H35 and  $N_2$  mixed plasma gas requires the use of an autogas console.