

# Activity of the second second

Superior cut quality and consistency Maximized productivity Minimized operating costs



# Superior cut quality and consistency



- Lower cut angle variability than any "precision" competitor tested.
- · Consistent, repeatable cutting performance.
- Virtually dross-free cutting reduces the need for secondary operations.

### **Maximized productivity**



- Increased cut speeds, approaching 200-amp processes.
- Cut speeds listed deliver the best cut quality, but cut speeds can be up to 50% faster.
- Rapid cut-to-cut cycle times increase productivity.

# The next generation

Hypertherm has led the advancement of plasma cutting technology for over 35 years and is the world's foremost manufacturer of plasma arc cutting equipment. By continually delivering breakthrough advances in cut quality, productivity and operating costs, Hypertherm reaffirms and extends its position as the world's leading supplier of advanced high-temperature metal cutting technology.

## HyPerformance Plasma delivers incomparable HyDefinition<sup>®</sup> cutting at half the operating cost

HyPerformance Plasma delivers the virtually dross-free cut quality of HyDefinition, but does it with greater consistency, faster cut speeds, longer consumable life and half the operating cost.

> Patented HyDefinition cutting for consistent quality

> > Plasma

gas inlet

Plasma

gas vent

HyFlow

vortex nozzle

# HyPerformance Plasma cuts, bevels and marks a variety of metals, thick and thin, making it the one system that does it all



- Patented HyDefinition cutting for consistent cut quality.
- Full range of cutting thicknesses from gauge material to production piercing of 25 mm (1 inch).
- · Superior HyPerformance stainless steel cutting.
- Marking and cutting performed with the same consumables.
- Quick-disconnect torch for simple and fast consumable changes.
- · Bevel cutting up to 45°.









Shield gas inlet Hypertherm shield technology Work piece (+)

HyFlow vortex technology stabilizes the arc precisely in the center of the electrode. This consistency improves cut quality and extends consumable life.

#### Longer consumable life



- Hypertherm's patented LongLife process significantly extends consumable life.
- Patent-pending water tube and electrode design delivers improved consumable life and consistent cut quality.

#### **Minimized operating costs**



- Half the operating costs of any "precision" competitor tested.
- · HyDefinition cut quality at half the operating costs.

# of mechanized plasma

# HyPerformance Plasma is designed to be operator-friendly and highly consistent

#### Simple, easy-to-use controls

- Manual gas console with power, current, troubleshooting and gas settings in one console.
- Auto gas fully integrated into CNC for full control of all plasma parameters.\*



Manual gas console



# HyPerformance Plasma is available with auto gas or manual gas delivery

- Responsive gas control compensates for variation in incoming pressure.
- The automatic and manual gas systems both provide diagnostic information via serial link to CNC.

#### Additional benefits of auto gas delivery

- Gas delivery is monitored and controlled near the torch for optimal cut quality and consumable life.
- · Fast switching from cutting to marking.
- · Full integration to CNC for control of all plasma parameters
- Fuel gas mixing for improved stainless and aluminum cutting.

# Responsive gas control reduces variability, while improving cut quality and increasing consumable life



# Specifications CE, CCC, CSA

Input voltages (3-PH) and currents	VAC 200/208 220 240 380 400 440 480 600	Hz 50 - 60 50 - 60 60 50 - 60 60 60 60	Amps 62/58 58 52 34 32 28 26 21			
Output voltage	50 – 150 VDC					
Output current	130 A					
Duty cycle	100%					
Maximum OCV	311 VDC					
Dimensions	1079.5 mm (42.5") D, 566.4 mm (22.3") W, 967.7 mm (38.1") H					
Weight with torch	317.5 kg (700 lbs)					
Gas supply Plasma gas Shield gas Gas pressure	0 <sub>2</sub> , N <sub>2</sub> , F5*, H35**, Air N <sub>2</sub> , 0 <sub>2</sub> , Air 8.3 bar (120 psi) Manual gas console 8 bar (115 psi) Automatic gas console					

\* F5 = 95% N<sub>2</sub>, 5% H

\*\* H35 = 35% H, 65% Ar

# Hypertherm, quality built in

HyPerformance Plasma systems have been subjected to thousands of hours of reliability testing in Hypertherm's laboratories. The results give Hypertherm the confidence to boast a 100% duty cycle in operating environments from  $-10^{\circ}$  C to  $40^{\circ}$  C.

- CCC, CE, CSA certification.
- 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.
- Enhanced serviceability and reduced part count provide a simple, robust design.

# **Operating data**

Virtually dross-free cutting capacity – mild steel Production pierce capacity – mild steel Maximum cutting capacity (edge start) – mild steel 16 mm (5/8") 25 mm (1") 38 mm (1<sup>1</sup>⁄<sub>2</sub>")

Material	Current (amps)	Thickness (mm)	Approximate cutting speed (mm/min.)	Thickness (inches)	Approximate cutting speed (ipm)
Mild steel	30	.5	5355	.018	215
0 <sub>2</sub> plasma		1	3615	.036	155
$0_2$ shield		1.5	2210	.060	85
-		3	1160	.135	40
		6	665	1⁄4	25
0 <sub>2</sub> plasma	50	1	5000	.036	210
0 <sub>2</sub> shield		3	1800	.135	60
-		6	950	1⁄4	35
0 <sub>2</sub> plasma	80	3	6145	.135	180
Air shield		6	3045	1/4	110
		10	1810	3/8	75
		12	1410	1/2	50
		20	545	3⁄4	25
0 <sub>2</sub> plasma	130	6	4035	1/4	150
Air shield		10	2680	3/8	110
		12	2200	1/2	80
		20	1050	3/4	45
		25	550	1	20
		38	255	1 1/2	10
Stainless steel	45	1	5740	.036	240
F5* plasma		2.5	2510	.105	90
N <sub>2</sub> shield		6	845	1/4	30
F5* plasma	80	4	2180	.135	105
N <sub>2</sub> shield		6	1225	1/4	45
		10	560	3/8	25
H35** plasma	130	10	980	3/8	40
N <sub>2</sub> shield		12	820	1/2	30
		20	360	3/4	15
		25	260	1	10
Aluminum	45	1.5	4420	.048	220
Air/Air		4	2575	.135	110
		6	1690	1/4	60
H35** plasma	130	12	1455	1/2	55
N <sub>2</sub> shield		20	940	3/4	40
		25	540	1	20

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, but cut speeds can be up to 50% faster.

The operating data chart does not list all processes available for the HPR130. Please contact Hypertherm for more information.

# Hypertherm®

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