

Auto gas benefits

For HPR400XD and HPR800XD



HPRXD[®] auto gas systems enable better hole quality, significant productivity increase and superior cut performance over manual gas systems.

Since 1968, Hypertherm Associates has had a single goal: cut the cost of cutting. Its single-minded mission is to provide customers throughout the world with the best cutting and shaping equipment and service in the industry. That's why Hypertherm Associates holds more major plasma cutting patents, and has more customers worldwide than any other brand. HyPerformance[®] Plasma delivers HyDefinition[®] cut quality for mild steel and stainless steel with greater consistency, faster cut speeds, longer consumable life and half the operating cost of competing technologies. The Hypertherm auto gas system facilitates and controls gas input, output, mixing and pressure levels delivering superior cut consistency, True Hole[®] and Fine Feature[™] technologies and the benefits of improved productivity all with minimal operator intervention.

HyPerformance Plasma engineered for robotic and structural steel applications

Improved performance

- True Hole[®]
 - Bolt hole quality is delivered automatically without operator intervention
 - Narrows the gap with laser hole quality making a plasma suitable for many jobs previously cut with laser
 - Virtually eliminates hole taper
 - Ding is reduced and biased to the outside of the hole
- Fine Feature[™]
 - The Fine Feature settings deliver optimal results when the highest quality fine feature cuts are required
- Gas mixing
 - Mixed plasma gas capability for stainless steel offers better quality with the 130-800 A processes across the mid-range thicknesses

Improved consistency

- Reliable cut quality
 - Closed-loop control of process gases allows gas pressure and flow to remain constant at the torch, even when incoming pressure to the system fluctuates (see gas flow diagram)

Improved productivity

- More production time per day with less time waiting
 - Reduced cut-to-cut and cut-to-mark time
- Reduces waste, downtime and inaccuracies
 - All plasma parameters are adjustable at the fully integrated CNC including current, plasma pre-flow and cut flow, shield pre-flow and cut-flow and gas type
 - Various troubleshooting routines available at the CNC, including pre-flow and cut-flow gas tests, leak and flow tests
 - Centralized control in single location eliminates the need for operator movement back and forth to adjust gas settings
- Simple robust design reduces set up time and repair
 - Highly simplified units with open access to components
 - Manifolds and motor valves are secured with mounting tab and a single screw, enabling guick one-handed installation
 - Color coded hoses and fittings for ease of assembly and quick repair time
 - Control and power boards are identical in metering console and selection console creating less confusion
 - Reduction in parts makes it easy to troubleshoot



Dip in pressure

Incoming pressure level



Autogas console

Constant pressure to torch

Metering console

Pressure to torch

Plasma gas	0 ₂ , N ₂ , F5*, H35**, Air, Ar
Shield gas	N_2 , O_2 , Air, Ar
Gas pressure	115 psi

* F5 = 5% H, 95% N ** H35 = 35% H, 65% Ar

For more information, visit: www.hypertherm.com

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Please visit www.hypertherm.com/patents for more details about Hypertherm Associates patent numbers and types.

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