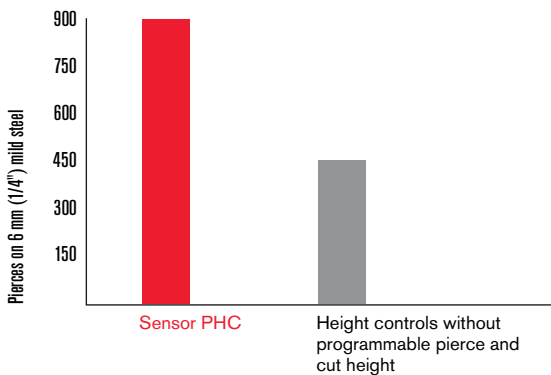


Powermax® plasma systems and Sensor™ PHC

Powermax air plasma systems used with a Sensor PHC offer metal fabricators an entry-level mechanized plasma cutting solution with excellent cut quality and consumable life. The tightly coupled designs of the Powermax and Sensor PHC make installation and operation easy.

Reliable, voltage-sensing torch height controls improve plasma system performance by automatically positioning the torch at the correct heights for cutting and piercing for better cut quality and improved consumable life.

The Sensor PHC utilizes advanced microprocessor technology and arc voltage closed loop feedback to automatically maintain desired torch height during cutting to provide greater accuracy, repeatability and cut quality.



Better consumable life

Spatter during piercing prematurely damages the nozzle and shield. Setting the torch higher during piercing avoids spatter damage, prolonging consumable life.

The Sensor PHC offers programmable settings for both pierce and cut heights to automatically position the torch.

Improved cut quality performance

Maintaining the torch at heights recommended in Hypertherm cut charts improves cut quality by positioning the plasma arc for the straightest cut. The Sensor PHC offers improved quality over the entire life of the consumables by automatically controlling torch height while cutting.

The following cut-edge angle dimensions were measured at the beginning and end of a 450 pierce-and-cut test for both setups.

	Sensor PHC	No Sensor PHC
1st cut sample, maximum kerf angle	3°	4°
451st cut sample, maximum kerf angle	4°	11°

Angles were measured on all four sides, all four samples. The lower the number, the better the cut quality. The angles will vary with thickness.

Sensor PHC

The Sensor PHC (Plasma Height Control) is an easy-to-use automatic plasma height control that can be combined with any CNC. Sensor PHC systems are available with the lifter, controller, and optional accessories (cabling, voltage divider) for a complete installation.



Magnetic breakaway: Tethered magnetic breakaway for consistent positioning during cutting and retention after collision or consumable change.

Powerful magnets and keyed mounting plate for fast and repeatable repositioning of the torch.

Powermax plasma systems

Powermax systems lead the industry for high-quality, cost-effective mechanized air plasma cutting. Featuring patented cartridge consumable technology, combined with advanced torch and power supply designs, Powermax systems cut thicker plates at faster speeds with better cut quality and consumable life than any other competitor.

Cutting specifications

System	Output current	Pierce with automatic THC*	Pierce without automatic THC	Duty cycle at full output	Amps @ 100% duty
Powermax45 XP	10-45 A	12 mm (1/2")	10 mm (3/8")	50%, 200-240 V, 1-PH 50%, 480 V, 3-PH	32 A
Powermax65 SYNC	20-65 A	16 mm (5/8")	12 mm (1/2")	50%, 230-600 V, 1-/3-PH 40%, 200-208 V, 1-/3-PH	46 A
Powermax85 SYNC	25-85 A	20 mm (3/4")	16 mm (5/8")	60%, 230-600 V, 3-PH 50%, 240 V, 1-PH 40%, 200-208 V, 1-PH	66 A
Powermax105 SYNC	30-105 A	22 mm (7/8")	20 mm (3/4")	80%, 480-600 V, 3-PH 70%, 240 V, 3-PH 54%, 208 V, 3-PH 50%, 200 V, 3-PH	94 A, 480-600 V 88 A, 240 V 77 A, 208 V 74 A, 200 V
Powermax125	30-125 A	25 mm (1")	22 mm (7/8")	100% 380/400/480/600 V, 3-PH	125 A

*Pierce capacity depends on the equipment being used. For Powermax systems, the higher capacity can be achieved when using an automatic torch height control to set independent pierce heights and cutting heights for the torch. When torch height is set manually or in a fixed position, the lower capacity applies.

For more information, visit:
www.hypertherm.com

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