

Hypertherm®

ArcWriter®

A dual gas, plasma marking, scoring and punching system

The ArcWriter is a dual gas, 100% duty cycle, plasma marking, scoring and punching system designed to leave temporary or permanent identification marks on metal surfaces. CNC interface options can deliver fully automated control of all functions.

Superior marking

- High speed marking or scoring on mild steel, stainless steel, aluminum and other metals up to 7.5 m/min (300 inches per minute).
- Creates punches or dimples for drill starts.
- Variable power output lets you control width and depth of mark, score or dimple.

Optimized design

- Optimized electrode design maximizes consumable life to reduce operating cost.
- The same set of consumables can deliver both light or heavy marking or scoring.
- Torch design allows fast, easy change of consumables.
- Contact start torch feature eliminates high frequency noise problems.
- Pneumatic cap sensor provides operator safety.

Flexible operation

- Dual gas torch design maximizes process flexibility.
- CNC machine interface enables automated system control of all functions, including active current control.
- Lead lengths up to 30 m (100') are available.
- Use as a stand-alone system or mount alongside plasma cutting tools on the same torch station.
- Divided arc voltage signals available for active torch height control.



Maximum reliability

- Heavy duty, chopper power supply delivers 100% duty cycle operation.
- Backed by Hypertherm warranty: Two years on power supply. One year on torch.

Outperforms powder and ink marking devices

- Can mark on wet or oily plate.
- No powder clogging problems, works in humid environments.



ArcWriter components

- Dual-gas mechanized marking torch
- Power supply
- Leads
- Arc voltage control board (optional)
- Current control panel (optional)
- Mounting and stand-off accessories (optional)



Light scoring and marking



Heavy scoring and marking



Punch mark or dimple

Performance data

Light marking

Will be clearly visible on the surface of the freshly marked plate. There will be from very little to no depth to the mark, allowing it to be covered or removed by secondary operations when desired.

Width 0.5–1.0 mm (0.020–0.040")
 Depth Less than 0.03 mm (0.001")
 Travel speed 3–7 m/min (100–300 ipm)

Heavy marking and scoring

Will be clearly visible on the surface of the freshly scored plate. Dimensional characteristics of the score are controlled by adjusting current, gas type and marking speed. Will have very little to no dross along-side the intended mark.

Width 0.5–1.0 mm (0.020–0.040")
 Depth 0.08–0.25 mm (0.003–0.010")
 Travel speed 3–7 m/min (100–300 ipm)

Punch mark or dimple

Will be round with dimensional characteristics controlled by adjusting current, gas type and dwell time.

Diameter 1.0–1.5 mm (0.040–0.060")
 Depth 0.5–1.0 mm (0.020–0.040")
 Dwell time 300–1000 msec,
 typically less than 1 second

Specifications

Power supply	
Electrical	
Rated OCV	235 VDC at rated input voltage
Output current	4–19 A, adjustable in 1-amp increments
Output voltage	120 VDC
Duty cycle at 40° C	100% (19 A, 120 VDC)
Input voltage	200 V, 3-PH, 50–60 Hz 208 V, 3-PH, 60 Hz 240 V, 3-PH, 60 Hz 400 V, 3-PH, 50–60 Hz 440 V, 3-PH, 60 Hz 480 V, 3-PH, 60 Hz 600 V, 3-PH, 50–60 Hz
Dimensions and weight	
Depth	716 mm (28.2")
Width	321 mm (12.6")
Height	475 mm (18.7")
Weight	55 kg (100 lbs.)
Gas requirements	
Plasma gas	Air or H5 (premixed industrial grade gas containing 5% hydrogen and 95% argon)
Shield gas	Air
Gas quality	
Air	Clean, dry and oil-free
H5	5% hydrogen, 95% argon premixed
Flow rates and pressures	
Plasma gas	28 l/min (60 scfh) @ 6.9 bar (100 psi) supplied to power supply pressure regulator
Shield gas	141 l/min (300 scfh) @ 6.9 bar (100 psi) supplied to power supply pressure regulator
Plasma torch	
Type	Dual gas, mechanized
Gas	Plasma and shield (refer to gas requirements)
Starting method	Contact start
Cap sensor	Pneumatic
Dimensions and weight	
Diameter	38.1 mm (1.5")
Length	280 mm (11")
Weight	0.8 kg (1.5")

For location nearest you, visit:
www.hypertherm.com

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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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