

# Magnetic Arc Control Systems



The Cyclomatic Series Magnetic Arc Control has been redesigned to provide the stability and precision a microprocessor control offers.

Two new microprocessor controllers are available: Model 8020 is compatible with four older style probes and the new 4600 probe; Model 8040 dual axis controller uses the 4613A probe.

Magnetic arc control provides even heat distribution, prevents undercutting, eliminates excessive porosity, ensures sufficient penetration, and evens out the weld puddle. Combined with a magnetic probe, a magnetic field is created around the arc to precisely position, oscillate, and stabilize it.

The Magnetic Arc System bolts onto your present automatic or semi-automatic welding torch and goes immediately to work solving some of welding's toughest problems. By adding stability and control over arc oscillation and positioning, the Magnetic Arc Control ensures a quality weld, even when welding on exotic metals.

## Specifications

Control Unit	Model 8020	Model 8040
Sweep Frequency	0-30 oscillation per second	0-30 oscillation per second
Sweep Amplitude	Proportional to arc length (approx. ratio 1:1)	Independent adjustment for each axis; proportional to arc length (approx. ratio 1:1)
Arc Position	Proportional to arc length (approx. ratio 1:1)	Independent adjustment for each axis; proportional to arc length (approx. ratio 1:1)
Dwell Ratio	1:1 to 100:1 on eight side of weld seam	NA
Dwell Control	Independently variable left and right	NA
Shaping	NA	1:1 to 100:1 on either axis; proportional to arc length (approx. ratio 1:1). For oscillating and elliptical patterns
Final Taper	0-15 seconds	0-15 seconds
Input Power	115/220 VAC, 50/60 Hz	115/220 VAC, 50/60 Hz
Cooling	Air/convection	Air/convection
Dimensions	9.75 x 4 x 11.75 (248 x 102 x 300 mm)	9.75 x 4 x 11.75 (248 x 102 x 300 mm)
Weight	12 lb (5.4 kg)	12 lb (5.4 kg)

# CYCLOMATIC SERIES MAGNETIC ARC CONTROL



## 4613A Magnetic Probe

With four independently controlled magnetic coils, the 4613A probe has the highest capacity for multiple arc and weld bead profiles. This probe, coupled with the 8040 Controller, provides the ability to shift the entire arc pattern relative to the weld seam with position controls.



## 4608C Magnetic Probe

This dual tip probe slips over a conventional TIG torch and can be used either for cross-seam weaving or in-line weaving.



## 4604 Magnetic Probe

This single tip, water-cooled probe works well in tight clearances and adapts to conventional torches.



## 4615 Magnetic Probe

This twin-tip, side mount probe is capable of delivering the full 600 gauss magnetic field to the welding arc.



## 4600 Magnetic Probe

This new single axis probe incorporates the latest magnetic technologies. Water cooling is not required for this probe but is optionally available. This probe features a detachable control cable for added flexibility.

Magnetic Probe	4600	4604	4608C	4613A	4615
Max Field Strength	600 gauss max	300 gauss max	300 gauss max	300 gauss max	600 gauss max
Cable Length	8 ft (2.5 m)	8 ft (2.5 m)	8 ft (2.5 m)	10 ft (3 m)	10 ft (3 m)
Weight	4 lb (1.8 kg)	5 lb (2.3 kg)	4 lb (1.8 kg)	5 lb (2.3 kg)	7 lb (3.2 kg)
Controller Compatibility	8020	8020	8020	8040	8020

See Jetline price list for complete ordering information

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