

EZ ORBITAL 517

ORBITAL WELD HEADS FOR FUSION WELDING OF TUBE

Magnatech introduces an innovative solution to orbital tube welding with its modular EZ Orbital welding systems. The model 517 is a tube welding controller that integrates the operation of a standard, commercial GTAW power source with the weld head. The new line of weld heads, the 1000 series, with digital control of rotation speed regulation, ensuring perfect repeatability.



Features

WELDING CONTROLLER

- Full color, touch screen operation
- Intuitive symbol-based operation
- Real time head temperature monitoring and over temperature alert
- Visual display of welding cycle
- Simple % adjustment of preset welding parameters
- Diagnostic fault detection system (gas purge, weld head jam, etc)
- Software updates and upgrades available by internet download via USB interface
- Compact and lightweight controller built into waterproof rugged case

WELD HEADS

- Digital rotation motor ensures 100% repeatable speed regulation
- Easy access collet clamp adjustment – optimal grip without deformation
- Flip top viewing port – accurate pre-weld fit up inspection
- Molded silicone switch panel on weld head handle – eliminates need for remote pendant
- Indestructible SS hinge provides rigidity for positive tube alignment
- Collets for all tube sizes/fitting geometries
- Internal water cooling standard – simply connect to a commercial water recirculator for high duty cycle applications

Accessories

- Extension cables allow use up to 12 m (40') from power supply
- Pre-ground tungsten electrodes
- Waterproof carry case
- Bench mount bracket



Tungsten Electrodes



OVER-CENTER CLAMPING USES SOLID COLLETS – NEVER NEEDS REPLACEMENT* *Patent Applied For

- Flush collets for minimal axial clamping length
- Extended collets for maximum alignment capability



Specifications

Length x width x height	330 x 420 x 170 mm (13 x 16.5 x 6.8")
Weight	6 kg (13 lbs)
Power supply capability	Consult factory for suitable models
Input power requirements	90/240 VAC, 1 Ø, 0.5 A fuse, 50/60 Hz
Unites of measurement	Metric and inch (selectable)
Operating temperature	-18 to 50° C (0 to 120° F)
Storage temperature	-25 to 60° C (-20 to 140° F)
Humidity	To 98% RH (non-condensing)
Power source	Conventional tig
Weldhead	1030
Pipe (tube) size	25 - 75 mm (1.0/3.0")

HOW EASY IS EZ ORBITAL?

The model 517 Controller has an intuitive symbol-based touch-screen user interface. Operation involves selecting a tube size and wall thickness and pressing the Start Weld switch on the Head. The operator can adjust amperage by a percentage override to accom-modate tube lot variation.

1 From new Weld Screen



2 Select Head, Tube O.D, WT.



3 Press Run to load weld



4 Press Start Weld



5 ...For a perfect weld every time



Dimensions/weights

	805	810	820	830	840	860
Tube Diameter Range	3-16 mm (.125-.625")	3-25 mm (.125-1.0")	6-51 mm (.25-2.0")	9-75 mm (.375-3.0")	12-102 mm (.5-4.0")	50-152.4mm (2-6.0")
RPM Range	1.8 - 2.0	0.6 - 9.5	0.3 - 5.0	0.1 - 2.5	0.1 - 2.3	0.1 - 2.0
Weight	2.5 kgs (5.5 lbs.)	3.2 kgs (7 lbs.)	5.0 kgs (11 lbs.)	6.4 kgs (14 lbs.)	8.2 kgs (18 lbs.)	10.0 kgs (23 lbs.)
"A"	91 mm (3.6")	124 mm (4.90")	175 mm (6.89")	202 mm (7.96")	231 mm (9.10")	297 mm (11.71")
"B"	36 mm (1.4")	62 mm (2.45")	83 mm (3.26")	96 mm (3.79")	110 mm (4.31")	144 mm (5.65")
"C"	31.3 mm (1.3")	42 mm (1.64")	43 mm (1.70")	43 mm (1.70")	43 mm (1.70")	43 mm (1.70")
"D"¹	15 mm (0.6")	19.5 mm (.77")	19.5 mm (.77")	19.5 mm (.77")	19.5 mm (.77")	19 mm (.75")

¹ Distance from nearest flush collet face to tungsten centerline. (Tungsten offset from center)

