One area commonly overlooked in micro arc welding is arc length. Weldlogic’s “Electro-Gauge” system consists of a precision Z axis stepper motor driven slide and microprocessor electronic control.

The Electro-Gauge automatically lowers the welding torch to the work surface and stops when the electrode is in contact with the weldment. After stopping above the work surface, the stepper drive increments the torch up the distance dialed into the control in thousandths of an inch, accurate to .0005" and then holds the torch in the position during the weld sequence. At the end of the weld sequence the torch automatically moves up to clear the weld area. Maximum up stroke is 3” standard, 6” on special orders.

The accurate and repeatable arc length of the Electro-Gauge eliminates weld penetration and heat input variations caused by inaccurate manual tungsten adjustment.

The combination controls of the PA 10/100 power supply, automatic precision tungsten to work gap setting of the EG-4 Electro Gauge and rotary positioning of the PWL welding lathe create a Precision, Repeatable, Low Skill level welding station for production based welding applications.
PA-10 100-STD
Micro Arc

The Most Accurate Low-Current Welding System on the market today

The precision weld fabrication of delicate heat sensitive assemblies is now a practical reality. Finally, there is an alternative to complicated and costly beam welding systems. Very low heat, high-speed welds can now be made in materials as thin 0.001” and as thick as 0.125” with the Weldlogic PA-10/100-STD, which meets and exceeds the throughput and repeatability demands of high volume TIG and Plasma manufacturing requirements. Now CE marked to comply with the highest safety and RF emissions standards.

This unique state-of-the-art dual range, 10 amp/100 amp, precision pulsed current arc welding system is the result of years of research and development in low current arc starting and control stability.

Weldlogic’s exclusive Direct Current (DC) arc initiation prevents start pulse overmelts in the most delicate of welds, and extends tungsten life. Closed loop servo control of welding current and direct reading digital controls make the PA-10/100-STD the most accurate low current welding system on the market today. Millisecond square wave arc current pulsation produces a narrow, more efficient arc for high consistency of low heat welds.

Weldlogic, Inc. maintains a staff of experts in the specialty of precision welding and automation for a wide variety of manufacturing industries.

Features:

- 110V, or 220V - 50/60 Hz, Single Phase Operation
- Ultra-low current system can soft- start and weld at 0.1 ampere
- DC Arc Starting extends tungsten life
- Dual range from 0.1 ampere to 100 amperes (60 percent duty cycle max)
- Welds material thicknesses from 0.00075” to 0.125”
- Closed-loop servo current control design
- No arc wander, even with current as low as 0.1 amp
- Trans-Portable
- Panel switchable TIG/Plasma modes
- CE Marked
- Many standard and custom options available
One area, commonly overlooked in micro arc welding, is arc length. Weldlogic’s “Electro-Gauge” System consists of a precision Z axis stepper motor driven slide and microprocessor electronic control.

The Electro-Gauge automatically lowers the welding torch to the work surface and stops when the electrode is in contact with the weldment. After stopping above the work surface the stepper drive increments the torch up the distance programmed into the control in thousandths of an inch, accurate to .0005” and then holds the torch in this position during the weld sequence. At the end of the weld sequence the torch automatically moves up to clear the weld nest area. Maximum up stroke is 3” standard, 6” on special orders.

The accurate and repeatable Electro-Gauge arc length eliminates weld penetration and heat input variations caused by inaccurate manual tungsten adjustment.

ADVANTAGES
- Automatic compensation for electrode erosion from part to part
- Higher welding speeds from your existing equipment
- Consistent quality, weld after weld
- Minimized setup time
- Lower operator skill requirement
- Facilitates part load and unload operations by automatically moving the welding torch away from the weld nest area
- Eliminates electrode grinding in many cases

SPECIFICATIONS

INPUT POWER
Voltage 117 VAC + 10%
Current Less than 1/2 ampere
Frequency 56/60 Hz, 1 phase
Circuit Breaker 2 1/2 ampere

PHYSICAL DATA-CONTROL ENCLOSURE
Height 7 inches
Width 11 inches
Depth 13 1/2 inches

CONTROLS
Power On/Off Rocker Circuit Breaker
Jog Up/Down Pushbuttons
Torch Gap Thumbwheel switch 01-99 thousandths
Start/Stop/Test Pushbutton

PHYSICAL DATA-MECHANICAL SLIDE
Height 12 inches
Width 2 3/4 inches
Depth 3 1/2”
Slide Travel 3 inches (standard)
Speed 15 IPM
Weight 7 lbs
Torch Diameter Mounting 1/4” to 1 3/8”
Load Capacity 15 lbs
Motor D.C. Stepper Motor
Step Increment 0.0005 inch/step