# bermetic sealing

## SM8500 Parallel Seam Sealing System

The Windows®-based SM8500, packed with advanced features, reliably performs welding, brazing, and soldering processes on a variety of metals, metal alloys, plated materials, and solder pre-forms. It can be operated as a stand-alone unit or fully integrated into an environmental enclosure for a complete closed loop hermetic sealing process.

The easy-to-use SM8500 is effective for either production or research and development applications for linear, rectangular or circular part processing. Its Graphical User Interface (GUI) and one-up part tooling enable quick changeover. The robust design of the SM8500 mechanism along with industry leading electronic controls and internal ethernet communications yield a precise, reliable and simple to maintain system.



#### Industry Leading Features and Benefits

- Current control mode for sealing process
  Advanced complex control program is optimized for industry's best seam
  sealing results.
- Programmable electrode force

Enables user to optimize both the force and energy through programmable settings to achieve superior results. Five point force calibration for precise force control and consistency.

• Most complete line of power supplies in the industry

Provides low sealing temperatures. Increases yields and productivity. Standard Inverter Power Supply with Capacitive Discharge or AC for specialty applications.

 Extended electrode life with electrode Auto-Trak software By indexing the electrodes we ensure extended and even wear, providing superior results.

• Position-based weld pulses

Provides increased or decreased energy at part corners. Reduces corner leaks. Solves electrode deceleration and acceleration problems with precise weld pulse spacing.

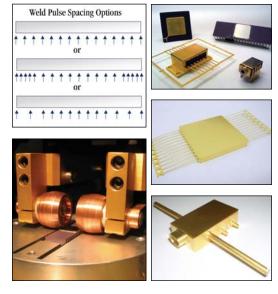
• Electrode roll-back feature

To assist electrode release from light weight parts.

• Process inhibits

Communicates with glovebox to ensure parts are processed only when desired gas composition is present.

#### TYPICAL APPLICATIONS



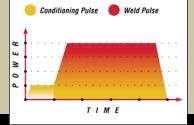


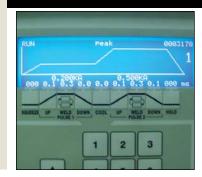
### Wide Range of Part Processing Capabilities

- Operates as tacker only, sealer only, or combined tacker-sealer
- Four-pass welding feature starts weld from center and welds to the part corner – for large part sealing
- Set different energy levels for each axis welded for higher yields on rectangular parts
- Many tacking options tack center, four-side tacking, multiple tacking
- Real time monitoring of weld inhibit inputs such as moisture, oxygen, and helium levels
- Unlimited weld schedule storage
- Optional lid hold down feature assists tacking process

#### Higher Yields With Advanced HF25 Inverter Power Supply

- 25 kHz feedback rate for closed loop electrical current control
- Automatically compensates for variations in lid-to-part dimensions and electrical properties
- Conditioning weld pulse brings each part to same resistance prior to application of welding current
- Weld pulse shaping feature ramps energy up or down to reduce cracking and leaks
- Energy output is independent of input line voltage fluctuations





#### Leading Edge Software Options

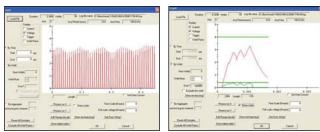
Batch Reporting Software option records lot number, operator, time, date, sealing schedule name, part serial number

SM8500

- Provides process and part traceability
- Exportable via .CSV format

WM3000 Weld Monitor Software option provides real-time and historical process analysis

- Compares actual measurements to entered process setpoints
- Informative graphical analysis screens



#### SPECIFICATIONS

5mm – 203mm (0.2 inches – 8 inches)	HF25 Pulse Width:	0.3 to 2000 milliseconds
$\pm 0.038$ mm ( $\pm 0.015$ inches)	Input Power –	192-264VAC, 50/60 Hz, 25 amps, 3 PH or
500 to 5000 grams	HF25 Power Supply:	320-440VAC, 50/60 Hz, 13 amps, 3 PH
200-500 grams (option)	Compressed Gas Requirements:	60 psi minimum
Up to 38mm (1.5 inches) per second	Mechanism Input Power:	115 VAC 50/60 Hz, 15 amps
0 to 28.8°/second – 720° Max. rotation	Calibration:	To NIST standards
50 to 2400 amps, ±2 amps		
-	±0.038mm (±0.015 inches) 500 to 5000 grams 200-500 grams (option) Up to 38mm (1.5 inches) per second 0 to 28.8°/second – 720° Max. rotation	±0.038mm (±0.015 inches)Input Power –500 to 5000 gramsHF25 Power Supply:200-500 grams (option)Compressed Gas Requirements:Up to 38mm (1.5 inches) per secondMechanism Input Power:0 to 28.8°/second – 720° Max. rotationCalibration:

#### Your Local Representative



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