

Benchmark AF8500/AF1250

Autoflow Lid Placement, Tack and Seam Sealing Systems

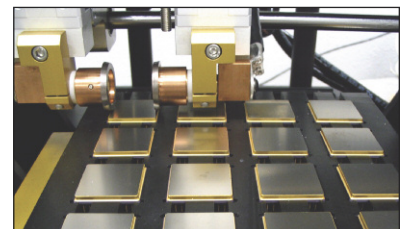
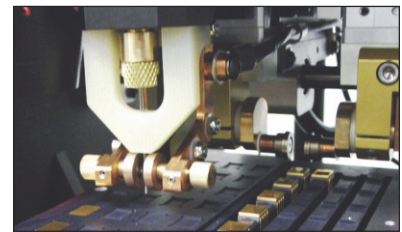


The AF series automated **seam sealing** systems provide users with the flexibility to meet the increasing demands of lid placement and seam sealing either as a stand-alone unit or as part of a fully integrated glovebox or automated manufacturing line. The computer-controlled precision tacking and seam-sealing mechanism is combined with a high frequency inverter power supply, and an optional high resolution vision system to provide a robust and repeatable process.

KEY FEATURES

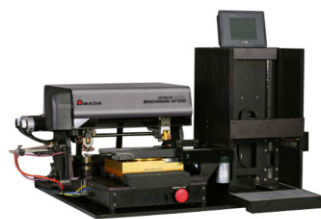
- Programmable electrode force and weld current using a Windows®-based proprietary software
- Closed-loop high frequency inverter welding power supply features low sealing temperatures and power feedback, increasing yields and productivity
- Current control mode optimized for superior seam sealing results
- Position-based weld pulses ensure consistent spot spacing, optimized spot density at corners, reduced leaks, and elimination of acceleration/deceleration problems
- Auto-Trak™ software indexes electrodes ensuring extended electrode life and more even wear
- Electrode roll-back feature assists in electrode release from lightweight parts
- Automated lid alignment and placement option holds lid in place during tacking, preventing misalignment; easy-to-program vision software
- Automated magazine loader option loads from either top or bottom for a fully or semi-automated part handling system

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 – best for large parts sealing
- Set different energy levels for each axis welded for higher yields on rectangular parts
- Single or double side tack options
- Real time monitoring of weld inhibit inputs such as moisture, oxygen, and helium levels
- Unlimited weld schedule storage
- Lid hold-down feature assists tacking process
- Chain or link multiple schedules together



Model AF1250-ST shown with optional magazine handler for automated pallet loading and unloading

TECHNICAL SPECIFICATIONS

Part size with vision, pick-place and tack	0.118 in - 4.3 in (3 mm - 110 mm)	
Part size without vision and pick-place	0.118 in - 8 in (3 mm - 203 mm)	
Lid placement accuracy	+/-0.003 in (+/-0.08 mm)	
Weld force (programmable)	500 to 3000 grams (1g increments)	
Linear weld speed	0.01 to 1.5 in/sec (0.01 increments)	
HF25 current output	100 to 2400 amps, ± 2 amps	
HF25 pulse width	0.10 to 99.00 milliseconds (0.01 increments)	
Input power – HF25 power supply	192 - 264 VAC (240 V nominal), 3 Ph, 50/60 Hz, 25 amps 320 - 440 VAC (400 V nominal), 3 Ph, 50/60 Hz, 20 amps 384 - 528 VAC (480 V nominal), 3 Ph, 50/60 Hz, 13 amps	
Mechanism input power	Autovolt 110 to 240 VAC 50/60 Hz single phase 15 amp	
Compressed gas requirements	60 psi minimum	
Calibration	To NIST standards	CE certified

WEIGHT & DIMENSIONS

	AF8500 mechanism	AF1250 mechanism with control box	HF25 power puppy
Dimensions (L x W x H)	28 in X 28 in X 17 in (712 mm x 712 mm x 432 mm)	Mechanism – 30 in x 28 in x 17 in (762 mm x 712 mm x 432 mm) Control box – 11 in x 15 in x 14 in (280 mm x 381 mm x 356 mm)	17 in x 10 in x 13 in (413 mm x 235 mm x 331 mm)
Weight	120 lbs (55 kg)	145 lbs (66 kg)	54 lbs (24.5 kg)