

Electrovert

Electronic Assembly Equipment

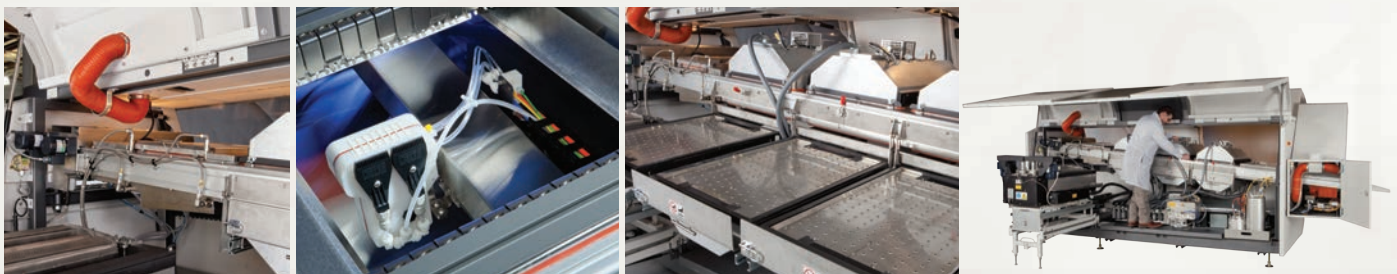
TW EAE

Electra[®] Wave Soldering System



The Electrovert Electra is an advanced, precision engineered wave soldering system designed for high-mass and high-volume manufacturers.

Technology + Performance + Reliability



Electrovert Electra

Electra:

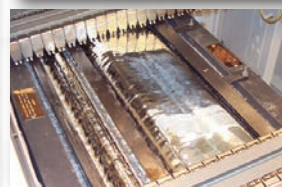
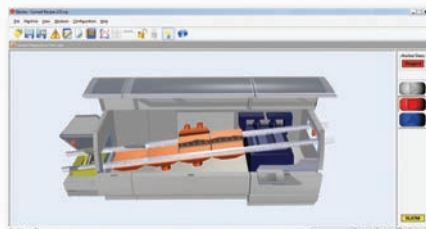
Electra's proven performance has provided the electronics assembly industry with world-class soldering results. The Electra system is designed with computerized, closed-loop controls that deliver the required accuracy and repeatability for demanding production environments.



Proven Performance, World-Class Results

The Electra is the most advanced wave soldering system available.

- Originally launched in 1996, the Electra has outperformed and outlasted all competitive soldering systems.
- Process control, process capability, and process flexibility are all competitive advantages to Electrovert wave soldering.
- All-in-one touchscreen PC with Windows 7 based operating system. The PC is mounted on an articulating arm.
- Intuitive graphical user interface that makes set-up and operation easy.
- Data logging of all critical machine parameters and trending are standard in the machine software.
- The ethernet based I/O system is common across all Electrovert wave, reflow and cleaning products (commonality of spare parts).
- The Electra is UL Listed for Factory Automation as standard.
- All Electrovert systems are made in the USA.



Electrovert Electra

Features and Options:



Fume Extraction

Lead Free

- All Electrovert waves are lead free qualified and optimized as standard
- Integrated fume extraction into back hood



Rolled out Solder pot

Solder Module

- All Electrovert wave systems have a lifetime warranty on the solder pot casting (applies to original owner)
- See the specifications section for the comprehensive list of features for every soldering process and application
- For N₂ soldering applications, the available features include:
 - N₂ boundary soldering (inerts at the waves)
 - Short N₂ tunnel (inerts the entire solder module area and wave)
 - Full N₂ tunnel (inerts all preheat sections, the entire solder module and at the waves)



Optional Dual Head ServoJet

Fluxer Types

- ServoSpray spray fluxer (single head or dual head)
- ServoJet jetted spray fluxer (available in single head, dual head and OA types)
- ServoSonic ultrasonic type spray fluxer



IsoThermal Convection Preheat (ICP)

Preheat

- All preheaters are wired with quick connect plugs and can be moved to any position or location
- The IsoThermal convection preheat utilizes heat on intake technology. The heating uniformity is very effective and efficient across the entire heating area
- See the specifications section for the comprehensive list of features



Front step with storage

Accessibility

- A single rear door allows complete access to all modules from the rear of machine
- Integrated pull-out step across entire front of machine

Conveyor

- Single continuous finger type conveyor through the entire length of machine
- No limitation on board length (min and max)
- Robust conveyor design capable of 100 lbs (43.4 kg) evenly distributed throughout the conveyor length



View from back with rear door open.

ELECTRA SPECIFICATIONS

Feature			Electra (EC-4)
Process	Alloy Type	Lead Free (Qualified and Optimized)	S
	Process Width	Maximum PCB Width	S 20" (508 mm) O 24" (610 mm)
Physical Characteristics	Machine Length	Length of machine with rail guides (Load/Unload)	S 187.9" (4.77 m) O 213.1" (5.4 m)
			Conveyor
	Preheat	Preheat Type	IR Platen
IsoThermal Forced Convection			S
Fast Response IR			O
	Preheat Length	Bottom	S (Qty. 2) at 4' (1.2 m) O (Qty. 4) at 8' (2.4 m)
		Top	O (Qty. 3) at 6' (1.8 m)
		Soldering Environment	Environment
Solder	Main Wave	UltraFill Air	S
	Dual Wave (2nd)	Chip Wave	S
		DwellMax Plus	O
	Nozzle Material	Melonite Coated, Stainless Steel	S
		Titanium	O
	N2 Soldering	UltraFill N2 (Boundary Type)	O
		Short Tunnel (Inerts entire solder pot area)	O
		Full Tunnel (Inerts entire solder pot and ALL preheat areas)	O
	Wave	Wave Height	S 12.7 mm O Up to 25 mm
ExactaWave (Automatic wave height control)			O
Casting		Lifetime Warranty on Solder Pot Casting	S
HMP	High Melting Point Capability (Special Warranty Applies)	RFQ	
Fluxer	Fluxer Types and Options	ServoSpray	S
		ServoJet	O
		OA ServoJet	O
		ServoSonic	O
		Flux Spray Start/Delay	S (ServoSpray/ServoSonic)
		Precision Selective Fluxing (includes flux spray start/delay)	S (ServoJet)
		Dual Flux Capability	ServoSpray/ServoJet
Operating System	Software and Controls	Windows 7 PC Based Software	S
		Ethernet Based I/O	S
	UL	UL Listed for Factory Automation Equipment	S
Country of Origin	Made in USA	Factory based R&D and Software Engineering, Manufacturing/Assembly and Applications Support	Camdenton, MO USA

O = Optional; S = Standard; RFQ = Request Factory Quote



Process Knowledge and Support

At ITW EAE, we deliver world-class products, performance, and unparalleled service and support programs. With the Electra comes the proficiency of our Electrovert process experts that allows us to solve real-world applications issues. *Knowledge in Process* for superior performance.

ITW EAE is a division of Illinois Tool Works, Inc. It is a consolidation of all of its Electronic Assembly Equipment and Thermal Processing Technology. The group includes world-class products from MPM, Camalot, Electrovert (Speedline), Vitronics Soltec and Despatch.