

Electrovert

Electronic Assembly Equipment

///TWEAE

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:

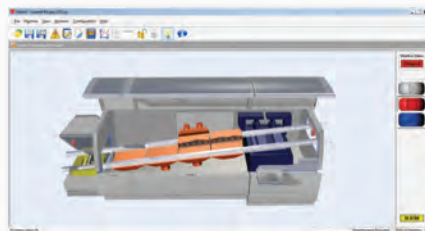
Electra's proven performance has provided the electronics assembly industry with world-class soldering results. The Electra system is designed with computerized, closed-loop controls that deliver the required accuracy and repeatability for demanding production environments.



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



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



Rollled out Solder pot



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	Maximum Load Weight		100 lb (45 kg)
		Motorized Width		S
Preheat	Preheat Type	IR Platen		S
		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)
Solder	Soldering Environment	Environment	S	Air
			O	N2
	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
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
		Windows 7 PC Based Software		S
		Ethernet Based I/O		S
		UL Listed for Factory Automation Equipment		S
Operating System	Software and Controls	Windows 7 PC Based Software		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.