

# Electrovert

Electronic Assembly Equipment

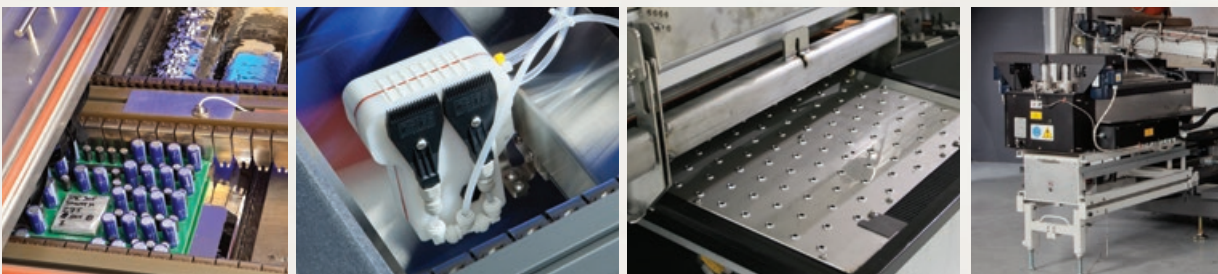
TW EAE

## VectraElite™ Wave Soldering System



The Electrovert VectraElite is an ideal wave soldering solution for medium-to-high mass board assemblies in a soldering environment that requires fast changeover, process flexibility, and system reliability.

Technology + Performance + Reliability



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## VectraElite

The VectraElite is an advanced highly engineered wave soldering system that delivers the required accuracy, repeatability, and process flexibility for demanding production environments.

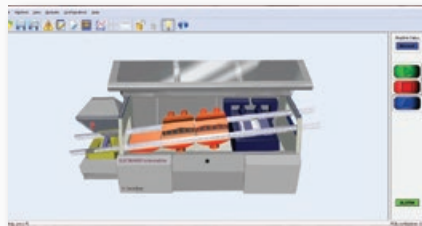
The VectraElite combines proven core subsystem technology and new advanced performance leading technologies designed for lead-free alloys.



### Accuracy, Repeatability and Process Flexibility

**The VectraElite provides the technologies necessary to achieve zero-defect process at the lowest cost of ownership.**

- The VectraElite wave soldering system was originally launched in 2005 and continue to be the market leader in delivering the most advanced wave soldering technologies at the lowest cost of ownership possible.
- Process control, process capability, and process flexibility are all competitive advantages to Electrovert wave soldering.
- All-in-one touchscreen PC with Windows 10 (64 bit) 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 VectraElite is UL Certified and Listed for Factory Automation as standard.
- All Electrovert systems are made in the USA.



# Electrovert VectraElite

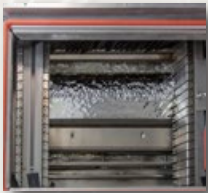
## Features and Options:



DwellMax Plus

### Wave Solder Nozzles

- Electrovert solder nozzles deliver exceptional soldering performance for demanding applications
- DwellMax Plus provides excellent topside hole fill and throughput. Ideal for high thermal mass boards.
- DwellFlex 4.0 provides process flexibility with an on-the-fly adjustable wave contact length. At maximum offers the most contact length in the industry for high thermal mass circuit boards and at minimum is ideal for low mass wave circuit boards.



DwellFlex 4.0 Adjustable Wave Contact Nozzle

### Lead Free Applications

- All Electrovert waves are lead free qualified and optimized as standard

### Fluxer Types

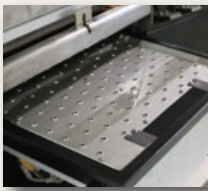
- ServoSpray spray fluxer (single head or dual head)
- ServoJet jetted spray fluxer (available in single head, dual head, OA types and with selective fluxing features)
- ServoSonic ultrasonic type spray fluxer



Optional Dual Head ServoJet

### Preheat

- Preheater accessibility is quick and easy from the front of the machine
- The IsoThermal convection preheat utilizes heat on intake technology. The heating uniformity is very effective and efficient across the entire heating area



IsoThermal Convection Preheat (ICP)



### Solder Module

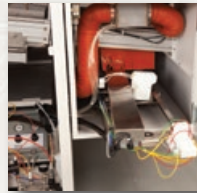
- All Electrovert wave systems have a lifetime warranty on the solder pot casting (applies to original owner)
- For N2 soldering applications, the available features include:
  - N2 boundary soldering (inerts at the waves)
  - Short N2 tunnel (inerts the entire solder module area and wave)
  - Full N2 tunnel (inerts all preheat sections, the entire solder module and at the waves)
- Integrated fume extraction into back hood



Rolled out Solder pot

### Accessibility

- Lift up hoods with gas shocks and hinged swing-out panels provide unobstructed access to the front of the machine
- Integrated step across front of machine provides exceptional accessibility for process set-up



Full access to all modules

### 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 front with all doors and hoods open.



## VECTRAELITE SPECIFICATIONS

		Feature	VectraElite (VC-3)	
Process	Alloy Type	Lead Free (Qualified and Optimized)	S	
	Process Width	Maximum PCB Width	S	
			O	
Physical Characteristics	Machine Length	Length of machine with rail guides (Load/Unload)	S	
			O	
	Conveyor	Maximum Load Weight	100 lb (45 kg)	
		Motorized Width	O	
Preheat	Preheat Type	IR Platen	S/O	
		IsoThermal Forced Convection	S/O	
		Fast Response IR	O	
	Preheat Length	Bottom	S	
			O	
Top		O		
Solder	Soldering Environment	Environment	S	
			O	
	Main Wave	UltraFill Air	S	
	Dual/Adjustable Wave Contact Length	Chip Wave	O	
		DwellMax Plus	O	
		DwellFlex 4.0	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) (Compatible with IR in #3 bottom position)	O	
	Wave	Wave Height	S	
O				
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 (ServoSpray/ServoSonic)	S	
		Selective Fluxing (includes flux spray start/delay)	OA Servojet	O
			High speed Servojet	S
		Dual Flux Tank / Single Flux Head	O	
		Dual Flux Head / Dual Flux Tank	O	
Teflon Coated Flux Tank	O			
Operating System	Software and Controls	Windows 10 - 64 bit	S	
		Ethernet Based I/O	S	
	UL	UL Listed for Factory Automation Equipment	S	
	CE	CE Certification	O	
Country of Origin	Made in USA	Factory based R&D and Software Engineering, 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 VectraElite 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, Vitronics Soltec and Despatch.