

ESS310 & ESS500 Selective Solder Machines

Your Economic Solution for:

- Prototyping
- Product Development
- Short Run, High-Mix
- Manufacturing Applications

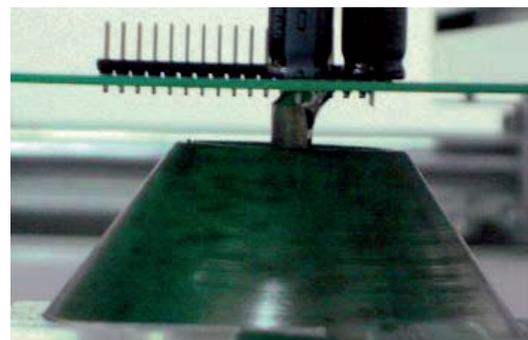
*Convert your hand soldering to automated selective soldering with an ESS
Achieve greater throughput, accuracy, and reliability...*



- Through-hole soldering flexibility - single point, drag, mini-wave, or dip soldering
- Exceptional accuracy and repeatability, with near “zero defect” solder joint yields
- Programming control and flexibility with on-board touch screen and off-line software
- Ease of operation, less handling, small footprint & durable construction

System Benefits & Features

- Precise, accurate, reliable soldering of through-hole components in mixed boards with previously soldered SMT components
- Reduce board processing time as compared with hand soldering
- Reduce direct labor costs, decrease rework costs, increase consistency over hand soldering through-hole components
- One, all inclusive system - Flux, Preheat, and Solder
- Touch screen interface for easy on instrument setup, programming and parameter control
- Instrument programming flexibility and control over preheat, temperature, soldering dwell times, location, direction, and more...
- Off-line programming with photoscan and Gerber import software for convenient machine setup
- Variety of Nozzles available for flexibility - Wettable and Specialty Nozzles*
- Lead-free compatible



PRODUCT SPECIFICATIONS:

Specifications	ESS-310	ESS-500
Max. PCB Size	310 x 310mm (12" x 12")	500 x 500mm (19.7" x 19.7")
Max. Clearance on Solder Side*	25mm (1")*	25mm (1")*
Max. Transport Speed	6m/min	6m/min
Transport Angle	0° fixed	0° fixed
Position accuracy above fluxer, preheater, and solder nozzle	± 0.1mm (± 0.004")	± 0.1mm (± 0.004")
Precision Spray Fluxer Module		
Flux Tank	2L Stainless Steel & Fittings, including Flux Level Monitoring	2L Stainless Steel & Fittings, including Flux Level Monitoring
Flux Speed Max.	6m/min	6m/min
Spray Width (Nozzle diameter 0.3mm)	3mm - 6mm (0.12" - 0.24")	3mm - 6mm (0.12" - 0.24")
Preheat Module		
100% IR Preheat	900W	1200W
Solder Module		
Nozzles	Wettable, Special	Wettable, Special
Smallest Nozzle Diameter	4.0mm on Wettable Nozzles	4.0mm on Wettable Nozzles
Min. Neighbor Component Clearance*	1.5 - 3mm (0.06" - 0.12") depending on nozzle type*	1.5 - 3mm (0.06" - 0.12") depending on nozzle type*
Solder Capacity	Approx. 15kg (33 lbs.)	Approx. 15kg (33 lbs.)
Max. Temperature	400°C (725°F)	400°C (725°F)
Warm-up Time	Approx. 45 minutes	Approx. 45 minutes
Nitrogen Technology		
N ₂ Supply (bottles, tank, or generator suitable, supplied by user)	N ₂ -covering over solder bath & pump unit	N ₂ -covering over solder bath & pump unit
N ₂ Pressure	2 bar (30 psi)	2bar (30 psi)
N ₂ Consumption	0.8 - 1.7 CFM (23 - 49 litres/min) dependent on nozzle and nozzle shroud	0.8 - 1.7 CFM (23 - 49 litres/min) dependent on nozzle and nozzle shroud
Air		
Pressure	5.5 bar (80 psi)	5.5 bar (80 psi)
Electrical Data		
Power	220 VAC, 1Ø, 15A	220 VAC, 1Ø, 16A
Max. Power Consumption	2.5kW	3.0kW
Max. Fuse Rate	15A	16A
Exhaust		
Exhaust Power (supplied by customer)	150 m ³ /hour	150 m ³ /hour
Exhaust Duct	100mm (4") in dia.	100mm (4") in dia.
Dimensions		
Size Dimensions	1240mm L x 1050mm W x 1400mm H (48.8" x 41.3" x 55.1")	1440mm L x 1250mm W x 1400mm H (56.7" x 49.2" x 55.1")
Weight	354kg (780 lbs.)	403kg (887 lbs.)

* Consult factory on PCB Layout

Leasing Options Available... For more information, phone us at 215-485-5663 or email us at sales@ddmnovastar.com



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PP004_200903