

EMST Stallion 400 FC



To cater to versatile needs of the industry and various complex PCB types, EMS Technologies is proudly launching Stallion 400fc – finger conveyor type wave soldering machine. This machine is result of 25 years of manufacturing experience over wave soldering, stencil printers, reflow ovens and continuous in-house Research & Development.

This is being introduced to cater high production needs and also to cater bigger PCB sizes used in Defence, Aerospace, Television and set-top box, complex applications requiring multi-layered boards. The unique enhanced PCB width along with top and bottom pre-heating systems is ready to cover demanding needs at the same time maintaining high output with reliable soldering quality.

Stallion 400fc was launched at LED Expo, Delhi and was well received by various industry experts/leaders visiting the show.

Salient Features:

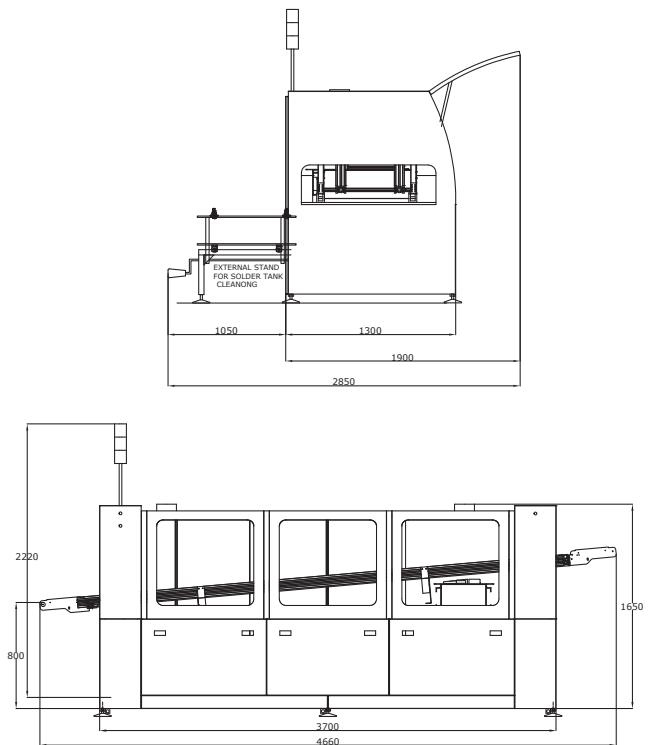
- WSM 400 machine is with PC Windows10® operating system that provides pull-down menus based on SCADA software.
- Data logging traceability feature enables the user to select the important process parameters for which data collection is desired, either board-based or time-based
- Multi-level user access
- Conveyor System Working width: 400 mm
- Rails width adjustment - Automatic / manual inching. Motorized width adjustment with VFD.
- Preheating length: 1800 mm
- Solder bath capacity – 350kg
- Titanium fingers ensuring long life
- High power Mechanical pump to meet the wave as high as 15mm
- Closed loop PID Temperature controller
- Top Pre-heater (select models)

Specifications:

Technical changes reserved.

General	
Max PCB Size	Max width 400 mm
Machine Dimensions	3700mm x 1300mm x 1650mm
Overall Dimensions	4660mm x 2580mm x 2220mm
PCB Loading height	750mm
Gross / Net Weight	1200 / 800 kg
Foam Fluxer	
Foam Fluxer Unit	5 lit tank required external compressed air at 2 kg/cm ³ , 900 lit / m
Spray Fluxer	
Spray Fluxer Unit	5 lit gravity tank and 1 lit solvent tank. Requires compressed air, at 5 kg/cm ³ 120 lit/min Flux Spray Start/Delay as per PCB length
Preheater	
Preheat Length	Independently controlled multi-zone preheaters Qty. 3 at 6' (1.8 m) Hot Air convection "Option" with Qty. 1 at 2' (600mm) Top IR heater Total Length 1.8 m Max Preheat Temp- 220 °C
Solder Tank	
Soldering Unit	350 kg (lead free) / 350 kg (lead) for Dual wave pot 100 minutes warm up time Nitrided Stainless Steel - Standard Motorized Motorized roll-out pot provides easy access. Pot rolls to front of machine: requires less floor space Exhaust above the solder area
Solder Pot Material	
Solder Tank Up/ Down	
Solder Tank Stand In/Out movement	
Exhaust	
Conveyor	
Conveyor Speed	0 to 2 m/min
Conveyor Angle	4 & 7 deg
Conveyor width adjustment	Motorised conveyor width adjustment with VFD (Manual / Auto)
Exhaust	
Extraction Duct	2 Extraction duct of 150mm dia on top
Exhaust Blower	500 m/hr
Electrical Supply	
Power Consumption	34 kW
Power Supply Voltage	415VAC, 3 phase, 50Hz, (Other voltage on request)
Control System	
Machine Control	PLC
Software and Controls	Windows 10 PC Based SCADA Software
Security	
Data Security Classification Level	Password protection for various levels • Factory Setting • Supervisor Setting • Operator Setting
User Interface Design	
	1. Auto Mode 2. Manual Mode 3. Weekly timer 4. Edit Parameter 5. Alarm history 6. User creation 7. Fault monitoring and reporting system 8. Data logging of all critical machine parameters and trending are standard in the machine software.
Spray Fluxer Technical Data	
Compressed Air Supply	Clean dry and oil free air at 4 to 6 bar. 100-120 lit/min
Nozzle Air Consumption	46 lit/min at 1 bar
Spraying width	Full cone diameter of 60 mm at spray distance of 60mm
Sprary Angle	50 to 96 deg (70 deg at 1 bar)
Sprary Distance	40 to 60 mm from PCBA bottom to top of nozzle
Glider Speed	0 to 17 m/min at 0 to 300 mm travel stroke
Flux Types	Water soluble, No Clean, VOC Free
Flux Solid Content (%)	Up to 36%
Flux Spray Pressure	0 to 2.5 bar
Conveyor Speed Limit	0 to 2 m/min
Others	
Finger Type	V or L type
Wave Height	Upto 15mm The wave height is controlled via the pumping rotation speed.

Dimensional Schematic:



Manufactured by

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