



High speed, in-line, multi-platform selective soldering system





# ORISSA FUSION

High speed, in-line, multi-platform selective soldering system



Incorporating high speed PCB transfer, the Orissa Fusion platform offers the ultimate in flexibility, coupled with reduced line length at a lower cost compared to current market offerings.

The standard four station cell can be configured to handle PCB's up to 381mm x 460mm - fluxer, preheat, solder, solder. For high speed applications this same unit can be configured as fluxer/preheat and up to three solder modules with as many as five heater options.

An optional PCB transfer station and return conveyor enables product to be manually unloaded adjacent to the conveyor load station - this configuration reduces PCB handling capability to 381mm x 250mm.

Each solder cell can be configured with any of the currently available Pillarhouse solder technologies: custom-dip, multi-dip, Jet-Wave and single point AP down to the patented 1.5mm micro nozzle.

Easy, rapid non-contact solder pot change over is facilitated via the optional heated pot exchange trolley.



TWIN INDEPENDENT SOLDER BATHS Solder baths operating on independent X, Y & Z axis for rapid production throughput



## SOLDER BATH & AUTO WIRE SOLDER FEED

Solder baths are individually tagged so that incorrect solder alloys cannot be selected with respect to any specific customer generated program.



1.5 MM MICRO NOZZLE



JET-TIP SOLDER NOZZLE



FLUX HEAD



**FUSION CONVEYOR** 

PILLARGEN 80 Nitrogen generation system









JET-WAVE SOLDER NOZZLE



LARGE BATH WITH TWIN ADJUSTABLE PUMPS/SOLDER NOZZLES

#### MONITORING OPTIONS

Flux presence sensor - thermistor style Flux spray, flow and spray & flow Pump rpm O<sub>2</sub> ppm Nitrogen flow

#### SYSTEM OPTIONS

Ultrasonic fluxing Dual Drop-Jet / ultrasonic fluxing Top-side instant IR preheat Bottom-side IR preheat Closed loop pyrometer temperature control Large solder bath for dedicated single dip applications Laser PCB warp correction 1.5mm micro nozzle PillarPAD offline programming system Solder reel identification Larger PCB handling size Nitrogen generator

## STANDARD FEATURES

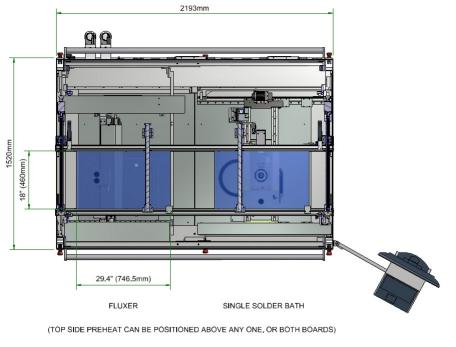
- In-line motor driven width adjust through feed conveyor Conveyor side clamping DC servo drives with encoders on X, Y & Z axis Integral PC and machine mounted TFT monitor Inerted nitrogen system Automatic fiducial correction system Motorised wire feed auto solder top-up & solder level detect Drop-Jet fluxer Solder wave height measurement and correction system Process viewing camera Multiple level password protection Solder bath coding - identifies correct bath for program Thermal nozzle calibration system using integrated setting camera (requires manual correction) Six AP solder nozzle tips Internal fume extraction Colour programming camera PillarCOMM Windows® based 'Point & Click' interface
- Lead-free compatible
- Day-to-day service kit

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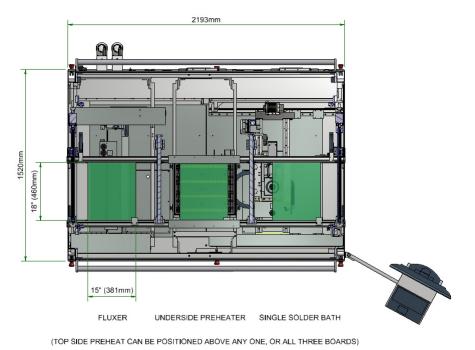


Compact 2 with Drop-Jet fluxer and solder module



MAX. BOARD SIZE = 746.5mm X 460mm (29.4" X 18")

Compact 3 with Drop-Jet fluxer, underside IR preheat and solder module

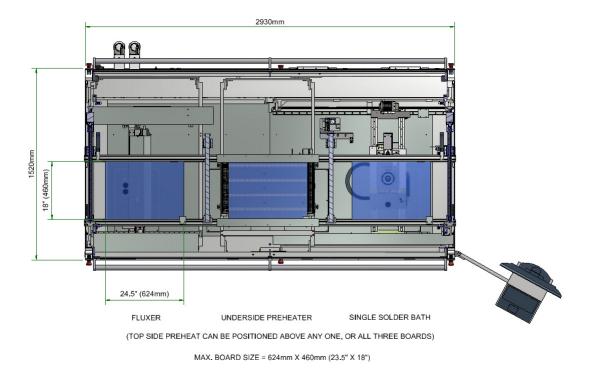


MAX. BOARD SIZE = 381mm X 460mm (15" X 18")

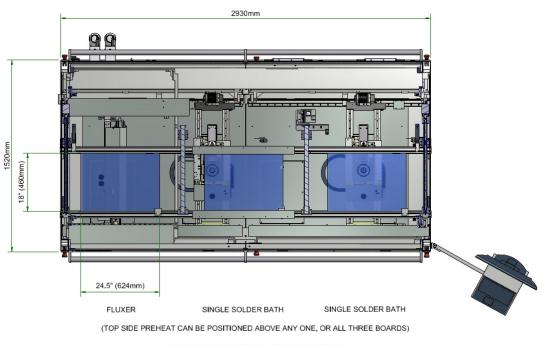




Fusion 3 with Drop-Jet fluxer, underside IR preheat and single solder module



Fusion 3 with Drop-Jet fluxer and twin independent single solder modules

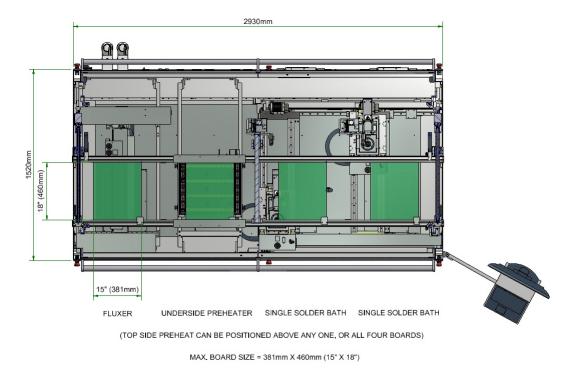


MAX. BOARD SIZE = 624mm X 460mm (23.5" X 18")

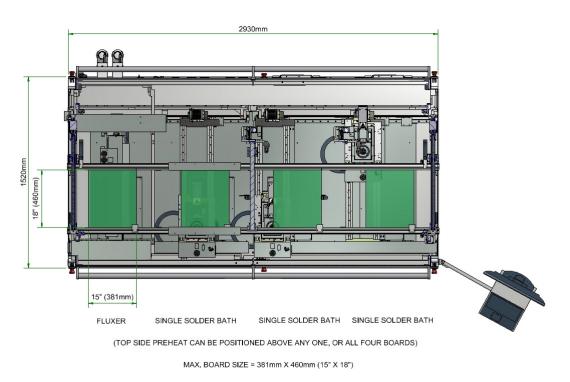




Fusion 4 with Drop-Jet fluxer, underside IR preheat and twin independent solder modules



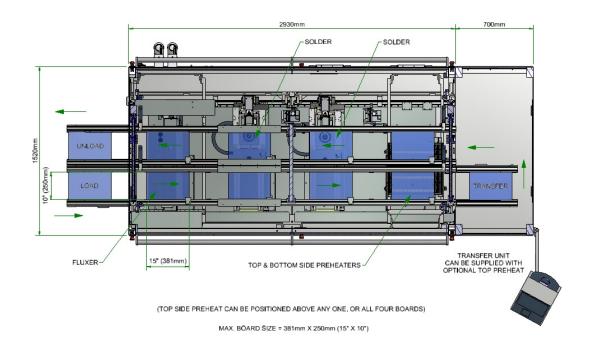
Fusion 4 with Drop-Jet fluxer and triple independent solder modules





FUSION STANDARD

Fusion 4 with PCB transfer and return conveyor



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ORISSA FUSION

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### SPECIFICATIONS

Height: Width:	1390mm / 55" to 2045mm / 80½"- with light stack 2193mm / 86½" Compact	
Depth:	2930mm / 115½" Standard 1520mm / 60"	
Board size:	1740mmm / 68½" with flux bottles 381mm x 460mm / 15"x 18"	
	- standard frame with 4 stations - larger PCB size available upon request	
Edge clearance:	Above / below 3mm	
Height clearance: Solder:	Above / below 40mm nominal, 70mm max. Most commonly used solder types - including lead-free	
Solder pot capacity:	20kg standard - 30kg large bath	
Applicators:	AP style - 2.5 - 16mm dia.	
	Extended and Jet-Tip nozzles - up to 25mm dia.	
	Jet-Wave nozzles - up to 25mm width	
	Special dedicated nozzles available upon request	
Flux:	Low maintenance Drop-Jet system. Low solids	
	(below 8%), no clean flux, pressurised and inerted	
	system, optional water-soluble system available	
X, Y & Z Axis resolution:	0.15mm	
Repeatability:	+/- 0.05mm	
Nitrogen usage:	40 litres gas/min per bath using single bath with	
	standard AP solder nozzle, 5 bar / 72 psi pressure.	
Nitrogen purity:	99.995% or better	
Air supply pressure:	5 bar / 72 psi	
Power supplies:	Three-phase + neutral + PE	
Voltage:	230 V phase to neutral / 400V phase to phase	
Frequency:	50/60Hz	
Power :	Machine configuration dependent - contact your local Pillarhouse representative	
Transport:	Motorised conveyor	
Programming:	PillarCOMM Windows® based 'Point & Click' interface	

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