

# **ORISSA FUSION**

High speed, inline, multi-platform selective soldering system

- DC servo drives with encoders on X, Y & Z axis \* >
- Upto 1113mm x 610mm (43.8" x 24") PCB handling capability (configuration dependent) >
- Available in 2, 3 and 4 station configurations ≻
- PCB transfer station and return conveyor ≻
- Topside and/or Bottom side I.R. pre-heat ≻
- Bottom side slide in/out I.R. pre-heat at flux station >
- Closed loop pyrometer pre-heat control ≻
- Laser PCB warpage correction >
- > Drop-jet / ultrasonic dual control fluxing system with independent flux supply
- 1.5mm to 25mm single point nozzle capability, Jetwave, Multi-dip and 150mm wave nozzle >
- Large solder bath configuration for dedicated single dip operations >
- ≻ Trolley device with heated station for rapid solder bath changeover
- Pump rpm monitoring >

\* Standard

Fusion 4 (4 station configuration)

## **ORISSA FUSION**



Fusion 4 (flux / top and bottom I.R. pre-heat / solder / solder)

#### **TECHNICAL SPECIFICATIONS**

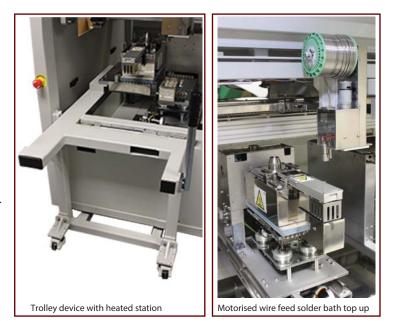
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Height (excluding light tower):1380mm (54")	
Width:	2193mm (86½") Compact
	2930mm (115½") Standard
Depth:	1520mm (60")
Board Size:	Maximum PCB handling size 1113mm x 610mm (43.8" x 24"). Standard frame with 2 stations. For further details of PCB handling capability refer to attachment.
Edge Clearance:	Above / below 3mm
Height Clearance:	Above / below 40mm nominal, 70mm max.
Solder:	All commonly used solder types (including Lead Free).
Solder Pot Capacity:	8kg standard bath 20kg large bath
Applicators:	AP-1 style (2.5, 3, 4, 6, 8, 10, 12mm)
	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, no
	clean flux, pressurised and inerted system, optional
	water soluble system available
X, Y & Z Axis Resolution:	0.15mm
Repeatability:	+/- 0.05mm
Nitrogen Usage:	35 litres gas/min per bath using standard AP solder nozzle, 5 bar pressure
Nitrogen Purity:	99.995% or better
Power Supplies:	Three phase + Neutral + PE
Voltage:	230 Volts Phase to Neutral
Frequency:	50/60Hz
Power (no I.R preheat):	ТВА
(with I.R preheat):	ТВА
Transport:	Motorised Conveyor
Programming:	Windows® based PillarCOMM 'Point & Click'
	programming

# 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 330mm x 510mm (fluxer, pre-heat, solder, solder). For high speed applications this same unit can be configured as fluxer/pre-heat 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 330mm 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.



#### 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 • Motorised wire feed auto solder top-up & solder level detect • Drop -jet fluxer • Two AP-1 solder nozzle tips • Internal fume extraction • Colour programming camera • PillarCOMM windows software • Lead free compatible

#### OPTIONS

Ultrasonic fluxing • Dual drop-jet / ultrasonic fluxing • Flux presence sensor • Flux flow monitoring • Pump rpm monitoring • Nitrogen ppm monitoring • Topside instant I.R. pre-heat • Bottom side I.R. pre-heat • Closed loop temperature control system via pyrometer • Solder wave height measurement and correction system • Large solder bath for dedicated single dip applications • Automatic fiducial correction system • Laser board warpage control • Process viewing camera • Multiple level password protection • 1.5mm micro nozzle • PillarPAD offline programming system • Nitrogen flow monitoring • Solder reel identification • Solder bath coding (identifies correct bath for program) • Larger PCB handling size • Nitrogen generator

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# **ORISSA FUSION MACHINE CONFIGURATIONS**

### Fusion 4

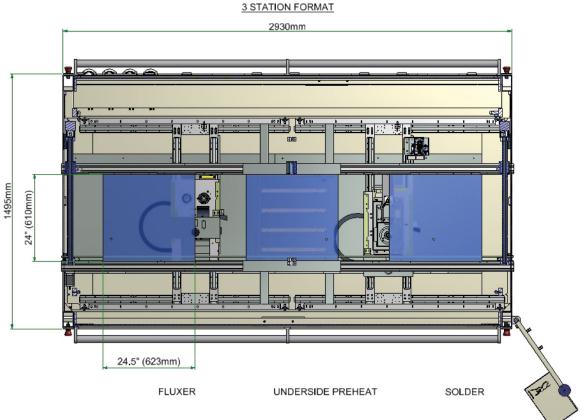
Shown with drop-jet fluxer, underside I.R. preheat and twin solder modules.



### Fusion 3

MAX. BOARD SIZE = 381mm X 610mm (15" X 24")

Shown with drop-jet fluxer, underside I.R. preheat and solder modules.

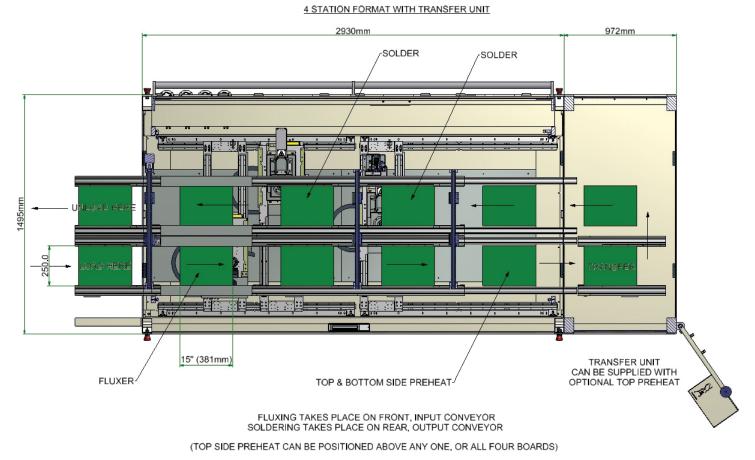


(TOP SIDE PREHEAT CAN BE POSITIONED ABOVE ANY ONE, OR ALL THREE BOARDS)

# **ORISSA FUSION MACHINE CONFIGURATIONS**

### Fusion 4

### Shown with PCB transfer and return conveyor.



MAX. BOARD SIZE = 381mm X 250mm (15" X 10")