

ORISSA FUSION

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















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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 three station cell Fusion 3 Compact - fluxer, pre-heat, solder - can be configured to handle PCB's up to 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.

For increased soldering capability this same unit can be configured as fluxer/pre-heat and two solder modules.

The standard four station cell Fusion 4 - fluxer, pre-heat, solder, solder - can be configured to handle PCB's up to 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.

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.

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 changeover is facilitated via the optional heated pot exchange trolley.



FUSION CONVEYOR



JET-TIP SOLDER



ULTRASONIC FLUX HEAD



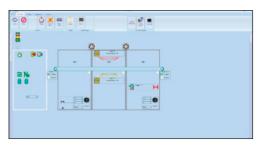
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SOLDER BATH & AUTO WIRE SOLDER FEED

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



OPERATION

The Fusion is controlled by a PC through our next generation PillarCOMM.NET software - a Windows based 'Point & Click' interface with PCB image display, as illustrated above.

Additionally, PillarCOMM.NET has an offline package that allows the operator to produce programs independently from the machine using Gerber data.



PILLARGEN80 Nitrogen generation system



STANDARD FEATURES

Integral PC & Machine Mounted TFT Monitor

In-Line Motor Driven Auto Width Adjust Throughfeed Conveyor

Auto Motorised Wire Solder Feeder & Level Detect

DC Servo Motor Axis Drive System

Auto Fiducial Recognition & Correction System

Solder Wave Height Measurement System

Auto Nozzle Conditioning System

Process Viewing Camera

Multilevel Password Security System

Inerted Nitrogen System

Pump RPM Monitoring - enabled as standard but option to disable if preferred

Drop-Jet Fluxer

Flux Level Sensor

Light Stack Tower

One Set of AP Solder Nozzle Tips (2.5mm, 3mm, 3.5mm, 4mm, 5mm, 6mm, 8mm,

10mm, 12mm) per Solder Bath

Internal Fume Extraction

Colour Programming Camera

Thermal Nozzle Calibration System using Integrated Setting Camera (requires

manual correction)

Solder Pot Coding

PillarCOMM.NET Windows® based 'Point & Click' interface

Offline Programming Software

Lead-Free Compatible

Day-To-Day Service Kit

MONITORING OPTIONS

Flux Presence Sensor - Thermistor Style

Flux Spray and/or Flow

Pump RPM

O₂ PPM

Nitrogen Flow

SYSTEM OPTIONS

Ultrasonic Fluxing

Dual Drop-Jet/Ultrasonic Fluxing

Top Side Instant IR Pre-Heat

Bottom Side IR Pre-Heat

Closed-Loop Pyrometer Temperature Control

Large Solder Bath for Dedicated Single Dip Applications

Laser PCB Warp Correction

1.5mm Micro Nozzle

Solder Reel Identification

Larger PCB Handling Size

Nitrogen Generator





JET-WAVE SOLDER NOZZLE



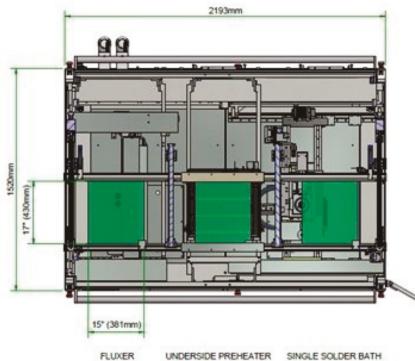
ADDITIONAL SYSTEM OPTION - PillarCARE

Pillarhouse's comprehensive after-sale service and process programme, available for all machines





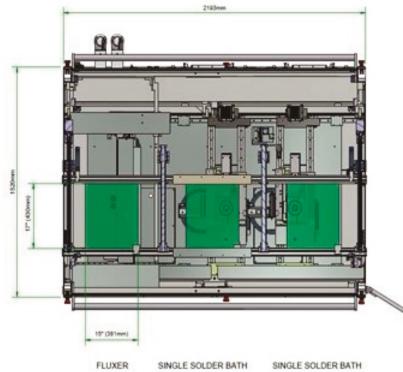
FUSION COMPACT



Fusion 3 Compact with Drop-Jet fluxer, top & bottom side IR pre-heat and solder module.

PCB handling size of 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.





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

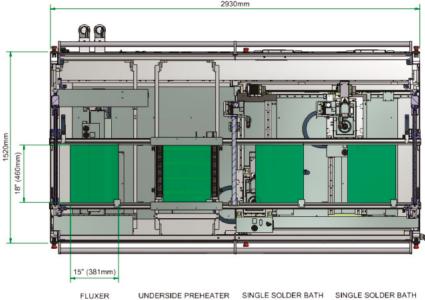
PCB handling size of 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.

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



FUSION STANDARD





Fusion 4 Standard with Drop-Jet fluxer, top & bottom pre-heat and twin single solder modules.

PCB handling size of 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.

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

2930mm

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Fusion 4 Standard with Drop-Jet fluxer and triple single solder modules.

PCB handling size of 381mm x 430mm, with a larger PCB handling size of 381mm x 460mm available when auto fiducial correction and PCB warp correction are excluded.

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

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



ORISSA FUSION



SPECIFICATIONS

Height: 1390mm/55" to 2045mm/801/2"- with light stack

Width: 2193mm/86½" Compact

2930mm/115½" Standard

1520mm/60" Depth:

1740mmm/681/2" with flux bottles

381mm x 430mm/15"x 17" - with a larger PCB handling size Board size:

of 381mm x 460mm/15" x 18" available when auto fiducial

correction and PCB warp correction are excluded

Edge clearance: Above/below 3mm

Above/below 40mm nominal, 70mm max. Height clearance:

Solder: Most commonly used solder types - including lead-free

Solder pot capacity: 6-7kg 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 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 +/- 0.05mm Repeatability:

Flux.

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

Three-phase + neutral + PE Power supplies:

Voltage: 230V phase to neutral/400V phase to phase

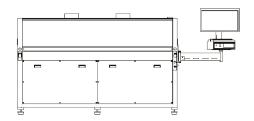
Frequency: 50/60Hz

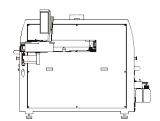
Power: Machine configuration dependent

- contact your local Pillarhouse representative

Transport: Motorised convevor

Programming: PillarCOMM.NET Windows® based 'Point & Click' interface





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