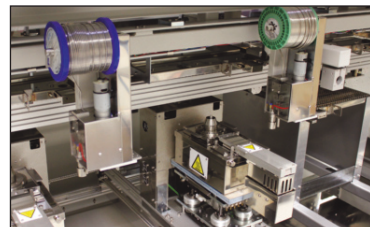
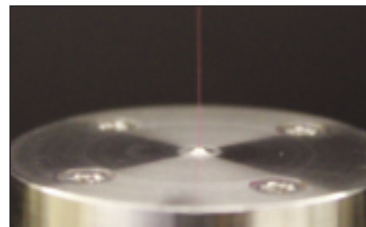


# ORISSA FUSION



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INTERNATIONAL

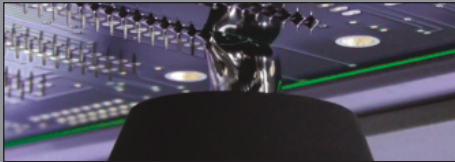
High speed, in-line, multi-platform  
selective soldering system



# 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 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.

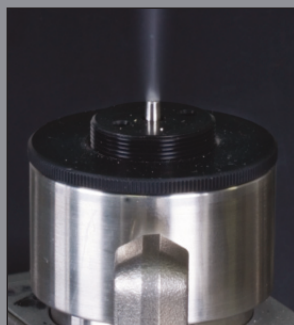
Easy, rapid non-contact solder pot changeover is facilitated via the optional heated pot exchange trolley.



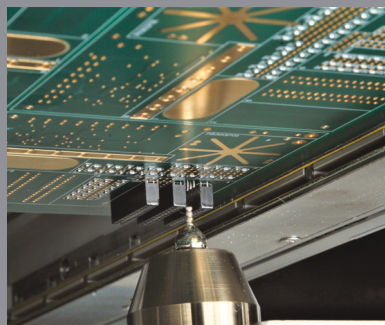
FUSION CONVEYOR



JET-TIP SOLDER NOZZLE



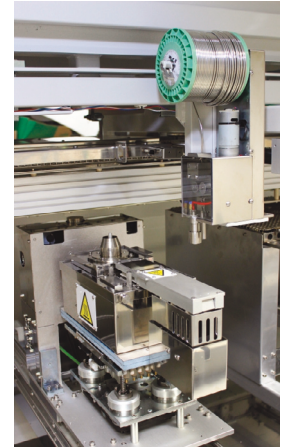
ULTRASONIC FLUX HEAD



1.5MM MICRO NOZZLE

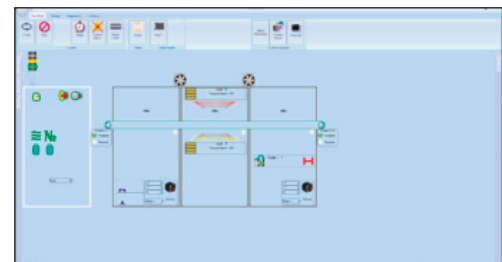


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SOLDER BATH & AUTO WIRE SOLDER FEED

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.

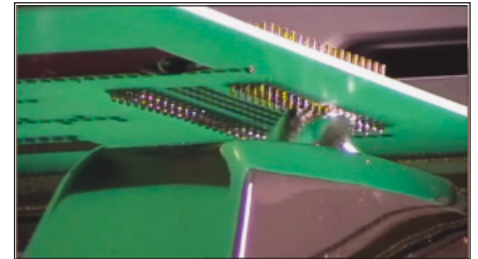
Additionally, PillarCOMM.NET has an offline package that allows the operator to produce programs independently from the machine using Gerber data.



PILLARGEN80  
Nitrogen generation system



Pillarhouse  
INTERNATIONAL



JET-WAVE SOLDER NOZZLE

#### 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
- O<sub>2</sub> 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



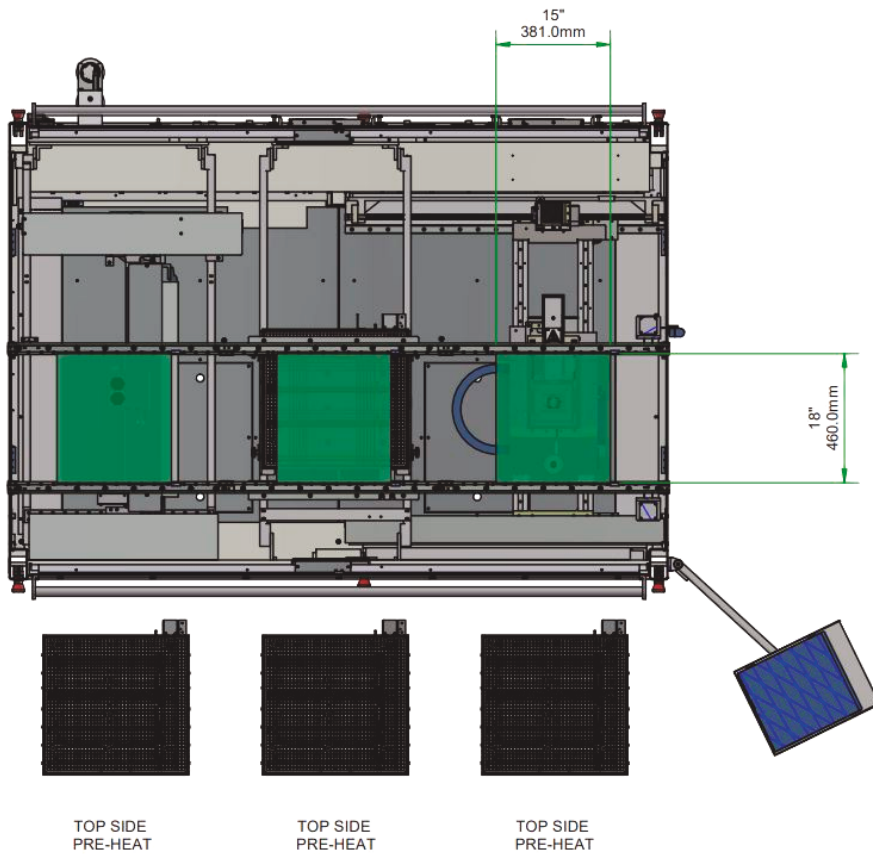
#### ADDITIONAL SYSTEM OPTION - PillarCARE

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

# FUSION COMPACT

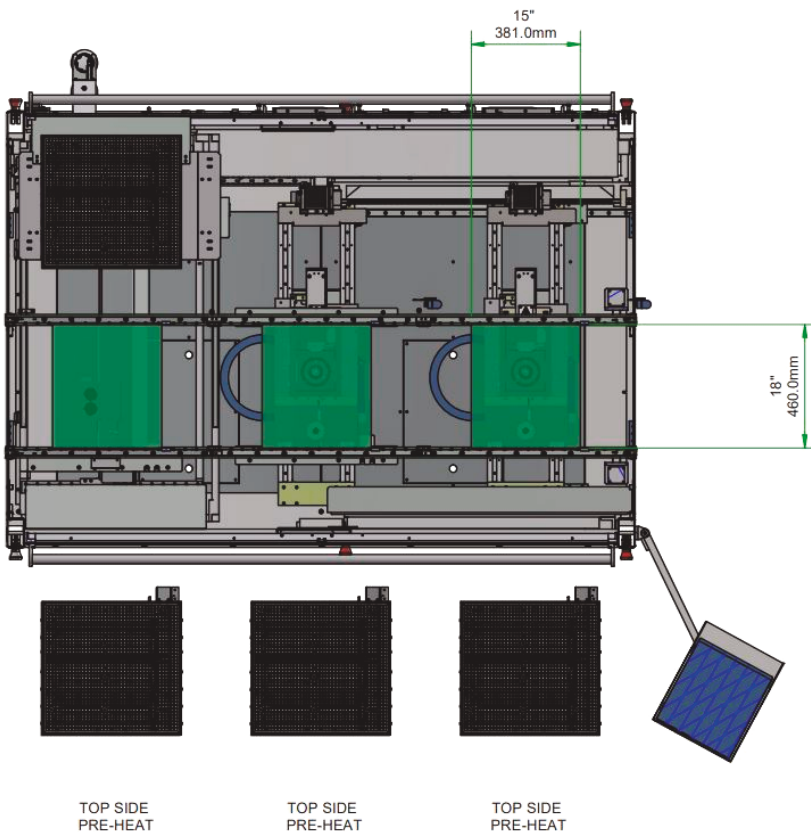


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Fusion 3 Compact with Drop-Jet fluxer, top & bottom side IR pre-heat and solder module.

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.



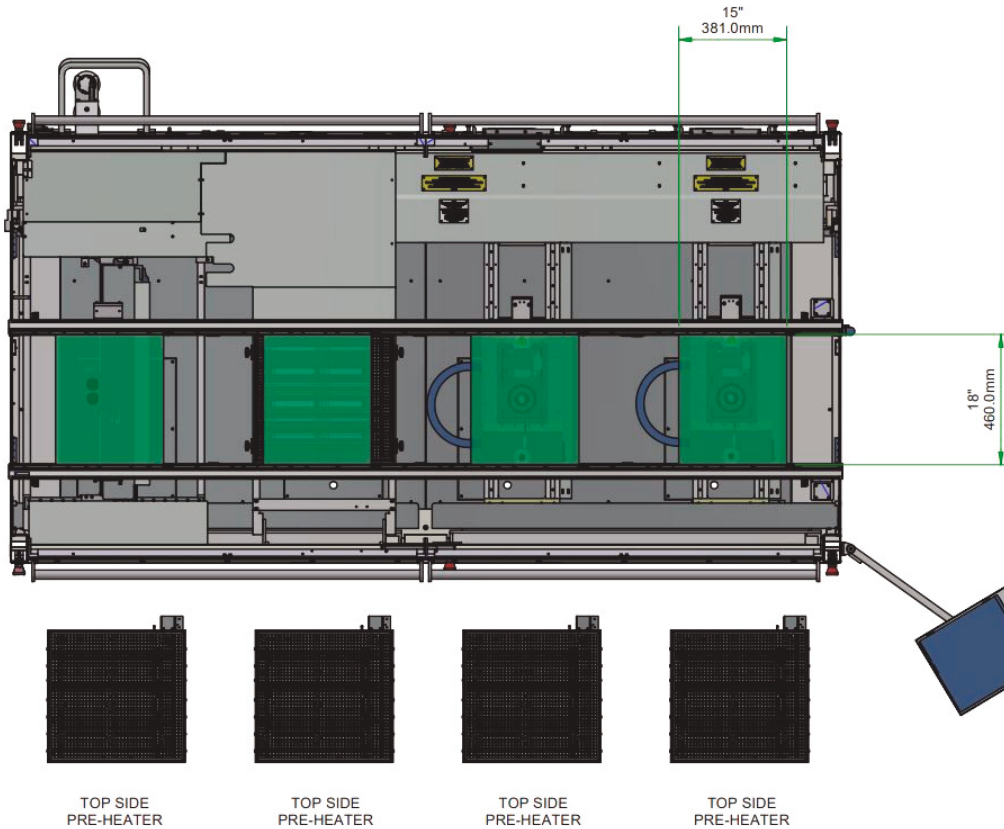
Fusion 3 Compact with Drop-Jet fluxer and twin single solder modules.

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.

# FUSION STANDARD

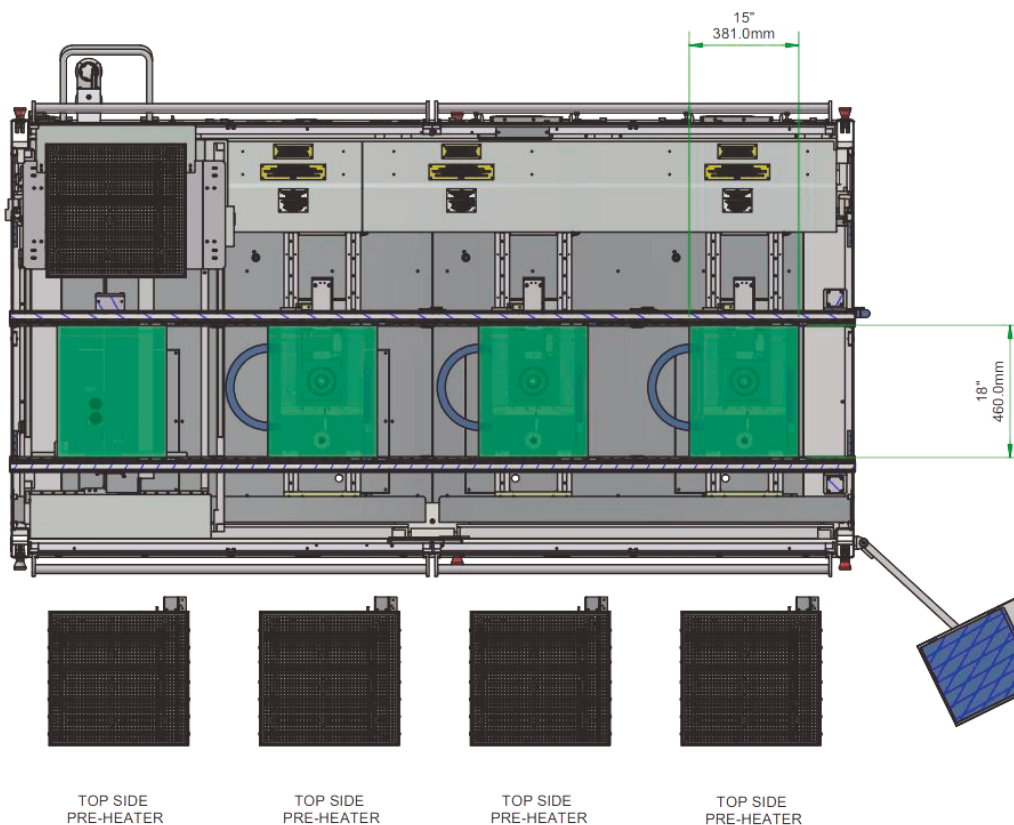


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Fusion 4 Standard with Drop-Jet fluxer, top & bottom pre-heat and twin single solder modules.

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.



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.

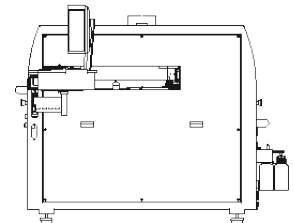
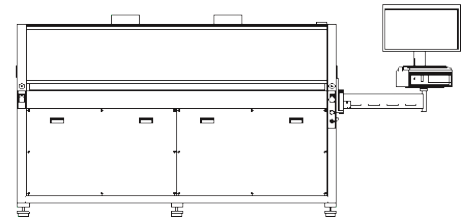
# ORISSA FUSION



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## SPECIFICATIONS

Height:	1390mm/55" to 2045mm/80½" - with light stack
Width:	2193mm/86½" Compact 2930mm/115½" Standard
Depth:	1520mm/60" 1740mm/68½" with flux bottles
Board size:	381mm x 430mm/15" x 17" - with a larger PCB handling size of 381mm x 460mm/15" x 18" available when auto fiducial correction and PCB warp correction are excluded
Edge clearance:	Above/below 3mm
Height clearance:	Above/below 40mm nominal, 70mm max.
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
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:	230V phase to neutral/400V phase to phase
Frequency:	50/60Hz
Power:	Machine configuration dependent - contact your local Pillarhouse representative
Transport:	Motorised conveyor Standard 3mm belt conveyor - 5kg per station Heavy duty 7mm belt conveyor - 9kg per station Disk conveyor - 20kg per station
Programming:	PillarCOMM.NET Windows® based 'Point & Click' interface



Pillarhouse International Ltd.

Rodney Way, Widford, Chelmsford, Essex CM1 3BY UK  
Pillarhouse USA, Inc.

201 Lively Blvd, Elk Grove Village, IL 60007 USA

Pillarhouse (Suzhou) Soldering Systems Co., Ltd.

105 Weixi Road, Suzhou Industrial Park, China 215127

[www.pillarhouse.co.uk](http://www.pillarhouse.co.uk)

Tel: +44 (0) 1245 491333 Email: [sales@pillarhouse.co.uk](mailto:sales@pillarhouse.co.uk)

[www.pillarhouseusa.com](http://www.pillarhouseusa.com)

Tel: +1 847 593 9080 Email: [sales@pillarhouseusa.com](mailto:sales@pillarhouseusa.com)

[www.pillarhouse.cn](http://www.pillarhouse.cn)

Tel: +86 512 6586 0460 Email: [sales@pillarhouse.cn](mailto:sales@pillarhouse.cn)