



Flexible, in-line, modular selective soldering system

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ORISSA SYNCHRODEX

Flexible, in-line, modular selective soldering system



Designed as a modular system, the Synchrodex range of in-line equipment offers the ultimate in flexibility with the ability to upgrade to high speed throughput when multiple modules are placed together.

Supplied as standard with our patented design Drop-Jet fluxer, this system offers accurate, controlled flux deposition either prior to or during the optional top side preheat function. Preheat can be controlled via an optional top-side closed loop pyrometer system for optimum temperature profile regulation.

Our low maintenance solder bath and pump mechanism moves in three axes. Solder is applied using our proven technology single point AP nozzle design incorporating patented spiral solder return to bath technology offering increased wave stability with reduced potential for solder balls. The system can also accommodate our latest generation micro nozzle, together with Jet-Wave, Wide-Wave and dedicated multi-tube single dip solder technology.

As with all Pillarhouse systems, the soldering process is enhanced by a hot Nitrogen curtain which provides an inert atmosphere for the soldering process and also assists in the prevention of oxidation. This process provides a local preheat to the joint thus reducing thermal shock to localised components.

The Synchrodex is controlled by a PC, through PillarCOMM, a Windows® based 'Point & Click' interface with PCB image display. Additionally, our PillarPAD offline package allows the operator to produce programs independently from the machine using Gerber data.



JET-TIP NOZZLE



DROP-JET FLUX HEAD



150MM WAVE NOZZLE



TOP-SIDE PREHEAT OPTION

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OPERATION

The Synchrodex is controlled by a PC, through PillarCOMM, a Windows® based 'Point & Click' interface with PCB image display, as illustrated above. Additionally, our PillarPAD offline package allows the operator to produce programs independently from the machine using Gerber data.

PILLARGEN-80

Nitrogen generation system







JET-WAVE SOLDER NOZZLE



TWIN FIXED PITCH AP SOLDER NOZZLE

MONITORING OPTIONS

Flux presence sensor - thermistor style Flux spray, flow and spray & flow Pump rpm O₂ ppm Nitrogen flow

OPTIONS

Ultrasonic fluxing Dual Drop-Jet / ultrasonic fluxing Top-side instant IR preheat Closed loop pyrometer temperature control Bottom-side hot Nitrogen selective preheat Laser PCB warp correction Solder reel identification Solder bath coding - identifies correct bath for program Encoders on X, Y and Z axis Nitrogen generator

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STANDARD FEATURES

In-line motor driven auto width adjust - through feed synchronous movement conveyor Conveyor side clamping Integral PC and machine mounted TFT monitor Auto solder wire feed and level detect Heated inerted Nitrogen system Drop-Jet fluxer Set of AP solder nozzle tips Internal fume extraction Solder wave height measurement and correction system Colour programming camera Windows® based PillarCOMM 'Point & Click' interface Light stack Fiducial recognition and correction system Flux level sensor Multiple level password protection PillarPAD offline programming system SMEMA compatible Process viewing camera with record feature Lead-free capability

Day-to-day service kit

ORISSA SYNCHRODEX

SPECIFICATIONS

Height:	1615mm / 63" - excluding light stack		
Width:	813mm / 32"		
Depth:	2024mm / 80"		
Board size:	Max 457mm x 610mm / 18"x 24"		
	Min 102mm x 102mm / 4″x 4″		
Edge clearance:	Above/below 3mm		
Height clearance:	Below 40mm - above 45mm		
	100mm - upon request		
Extraction:	Fan: 276mm dia.		
Rating:	1000m³/hr / 589 CFM		
Solder:	Most commonly used solder types - including lead-free		
Solder pot capacity:	15kg standard - 25kg large bath		
Applicators:	AP style - 2.5 - 16mm dia.		
	Extended and Jet-Tip nozzles - up to 25mm dia.	Di	
	Jet-Wave nozzles - up to 25mm width	T	
	150mm Wave nozzle	Ľ,	
Flux:	Low maintenance Drop-Jet system. Low solids		
	(below 8%), no clean flux, pressurised and inerted		
	system, optional water-soluble system available		
Flux tank capacity:	1 litre		
Fluxer speed:	50 dots/second		
Deposition size:	4.0-6.0mm / 0.16-0.24"		
X, Y & Z axis resolution:	0.15mm		
Repeatability:	+/- 0.05mm		
Nitrogen supply pressure:	5 bar / 72 psi		
Nitrogen usage:	30-100 litres/min solder nozzle configuration dependent		
Nitrogen purity:	99.995% or better		
Air supply pressure:	5 bar / 72 psi		
Air usage:	10 litres/min. / 0.35 CFM		
Power Supplies:	Single phase + PE		
Voltage:	230V		
Frequency:	50/60Hz		
Power:	10.5 kVA max machine configuration dependent		
Transport:	Conveyor		
Programming:	PillarCOMM Windows® based 'Point & Click' interface		



INTERNATIONAL



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