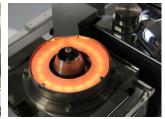




Flexible, in-line, modular selective soldering system













## 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 optional 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** 



#### **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 optional 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

#### 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

Two AP solder nozzle tips

Internal fume extraction

Colour programming camera

Windows® based PillarCOMM 'Point & Click' interface

Light stack

Flux level sensor

SMEMA compatible

Process viewing camera with record feature

Lead-free capability

Day-to-day service kit

#### MONITORING OPTIONS

Flux presence sensor - thermistor style

Flux spray, flow and spray & flow

Pump rpm

O<sub>2</sub> ppm

Nitrogen flow

### OPTIONS

Ultrasonic fluxing

Dual Drop-Jet / ultrasonic fluxing

Top-side instant IR preheat

Closed loop pyrometer temperature control

Solder wave height measurement and correction system

Bottom-side hot nitrogen selective preheat

Fiducial recognition and correction system

Laser PCB warp correction

Multiple level password protection

PillarPAD offline programming system

Solder reel identification

Solder bath coding - identifies correct bath for program

Encoders on X, Y and Z axis

Nitrogen generator

Pillarhouse... Expect innovation www.pillarhouse.co.uk



# **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.

Jet-Wave nozzles - up to 25mm width

150mm Wave nozzle

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

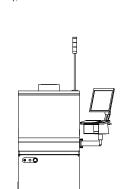
Power Supplies: Single phase + PE

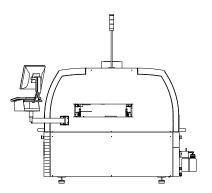
Voltage: 230V Frequency: 50/60Hz

Power: 10.5 kVA max. - machine configuration dependent

Transport: Conveyor

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





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