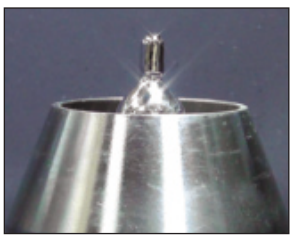
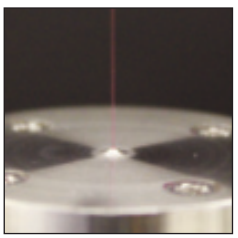
JADE PRODEX

Ultra-flexible, offline, multi-platform, quick load
twin PCB rotary table selective soldering system

Pillarhouse
INTERNATIONAL





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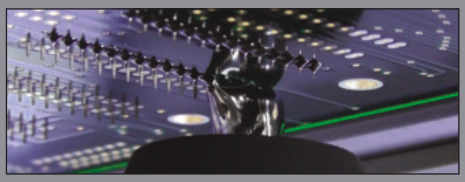
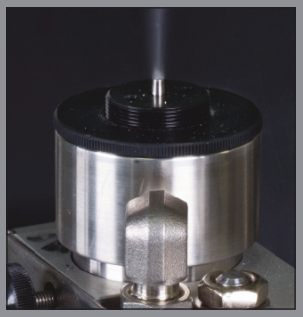


Designed to meet the needs of the small batch manufacturer who requires high levels of production flexibility. The Jade Prodex offers the ability to regularly change solder alloys without incurring expensive down time, whilst the solder bath cools down and heats up during a regular manual changeover process.

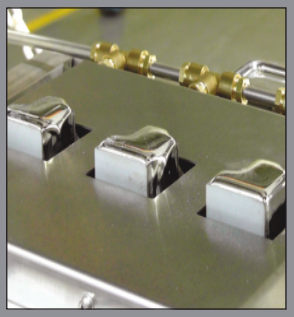
The Prodex is an offline system, incorporating a quick load, twin PCB, universally adjustable rotary table transport system to allow simultaneous load/unload during product processing.

As standard, the Jade Prodex machine is configured with our Duplex twin solder bath arrangement. On adjacent, independent Z axis drives, this setup offers increased production flexibility by permitting the use of two different nozzle tip sizes, which can be allocated as process requirements dictate within any particular area on a PCB.

NITROGEN PURITY ANALYSER



ULTRASONIC FLUX HEAD



MULTI-DIP NOZZLE

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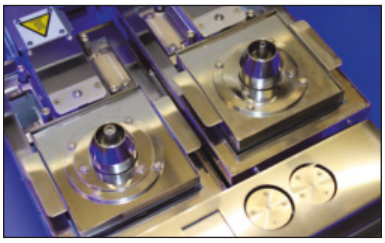
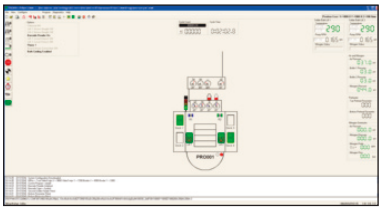


DUPLEX TWIN SOLDER BATH ARRANGEMENT

Solder bath and pump assemblies with twin Drop-Jet flux head and programming camera.



OPERATION

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

PILLARGEN 80

Nitrogen generation system

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STANDARD FEATURES

Integral PC & Machine Mounted TFT Monitor
Duplex Twin Independent Z Axis Solder Pots
Auto Motorised Wire Solder Feed & Level Detect
Adjustable Rotary Table Twin Tooling Mechanism
DC Servo Motor Axis Drive System
Manual Fiducial Correction System
Solder Wave Height Measurement System
Pump RPM Monitoring
Auto Nozzle Conditioning System
Process Viewing Camera
Multilevel Password Protection System
Inerted Nitrogen System
Drop-Jet Fluxer
Light Stack Tower
One Set of AP Solder Nozzle Tips (2.5mm, 3mm, 3.5mm, 4mm, 5mm, 6mm, 8mm, 10mm, 12mm) per Solder Bath
Flux Level Sensor
Internal Fume Extraction
Colour Programming Camera
PillarCOMM Windows® based 'Point & Click' interface
PillarPAD Offline Programming System
Thermal Nozzle Calibration System using Integrated Setting Camera (requires manual correction)
Solder Pot Coding
Lead-Free Compatability
Day-To-Day Service Kit

MONITORING OPTIONS

Flux Presence Sensor - Thermistor Style
Flux Spray and/or Flow
Pump RPM
O_2 PPM
Nitrogen Flow

SYSTEM OPTIONS

Top Side & Bottom Side Slide In/Out Instant IR Pre-Heat
Closed-Loop Pyrometer Temperature Control
Bottom Side Hot Nitrogen Selective Pre-Heat
Automatic Fiducial Correction System
Ultrasonic Fluxing
Dual Drop-Jet/Ultrasonic Fluxing
Laser PCB Warp Correction
Micro Nozzle Assembly
Large Solder Bath for Dedicated Single Dip Applications
Solder Bath Removal Trolley
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

JADE PRODEX

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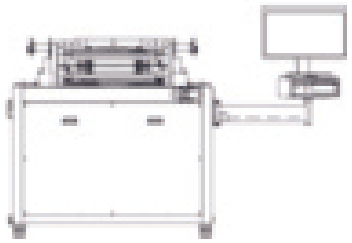
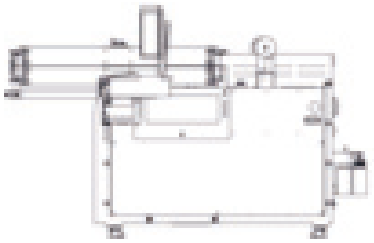
SPECIFICATIONS

Height:	1208mm / 47.5" to 2025mm / 80"- with light stack
Width:	1250mm / 49" to 1460mm / 57"- with rotate
Depth:	2020mm / 79.5"
	2240mm / 88" with flux bottles
Board size:	457mm x 508mm / 18"x 20"
Edge clearance:	Above/below 3mm
Height clearance:	Above/below 40mm nominal
	70mm max. top side only
Solder:	Most commonly used solder types - including lead-free
Solder pot capacity:	20kg standard - 30kg large bath
Applicators:	AP style - 2.5mm to 16mm dia.
	Extended AP style - 2.5mm to 20mm dia.
	Micro Nozzle - 1.5mm to 2.5mm
	Jet-Tip style - 6mm to 40mm dia.
	Jet-Wave nozzle - 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:	0.1mm
Repeatability:	+/- 0.05mm
Nitrogen usage:	Up to 40 litres gas/min per bath using single bath with standard AP solder nozzle, 5 bar pressure. Up to 80 litres gas/min using Duplex twin bath configuration. Refer to Pillarhouse for Nitrogen usage requirement with dedicated multi-tube nozzle assemblies.
Nitrogen purity:	99.995% or better
Power supplies:	Three-phase + neutral + PE
Voltage:	230V phase to neutral / 400V phase to phase
Frequency:	50/60Hz
Power :	Maximum 9kVA per phase - machine configuration dependent
Transport:	Hand load
Tooling:	Integral adjustable board guides, includes finger extensions and board clamps.
Programming:	PillarCOMM Windows® based 'Point & Click' interface





Pillarhouse International Ltd.
Rodney Way, Widford, Chelmsford, Essex CM1 3BY UK
www.pillarhouse.co.uk
Tel: +44 (0) 1245 491333 Email: sales@pillarhouse.co.uk

Pillarhouse USA, Inc.
201 Lively Blvd, Elk Grove Village, IL 60007 USA
www.pillarhouseusa.com
Tel: +1 847 593 9080 Email: sales@pillarhouseusa.com

Pillarhouse (Suzhou) Soldering Systems Co., Ltd.
105 Weixi Road, Suzhou Industrial Park, China 215127
www.pillarhouse.cn
Tel: +86 512 6586 0460 Email: sales@pillarhouse.cn