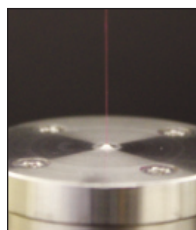
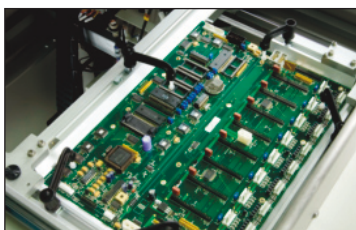


# JADE PRO

Ultra-flexible, offline, multi-platform selective soldering system



Pillarhouse  
INTERNATIONAL



# JADE PRO

Ultra-flexible, offline, multi-platform selective soldering system



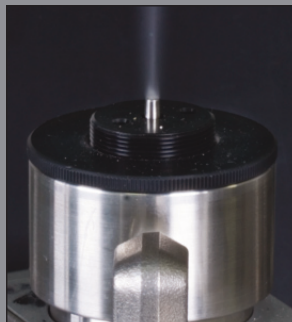
Designed to meet the needs of the small batch manufacturer who requires high levels of production flexibility. The Jade Pro offers the ability to regularly change solder alloys without incurring expensive down time, whilst the solder bath cools down and heats up during a regular manual changeover process.

The Jade Pro is a handload system, incorporating a universally adjustable tooling carrier capable of accommodating PCBs or pallets up to 457 x 508mm. As standard, the Jade Pro is configured with our Duplex twin solder bath arrangement.

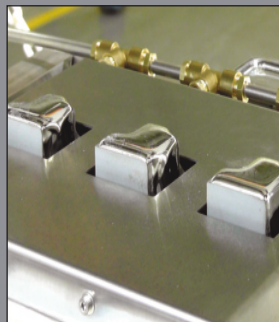
**This twin independent Z axis solder bath arrangement offers increased production flexibility by permitting use of two different nozzle tip sizes within any single process programme, which can be allocated as process requirements dictate within any particular area on a PCB. Alternatively, different solder alloys can be utilised within this single machine setup.**



NITROGEN PURITY ANALYSER



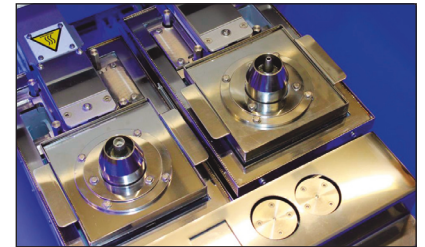
ULTRASONIC FLUX HEAD



MULTI-DIP NOZZLE

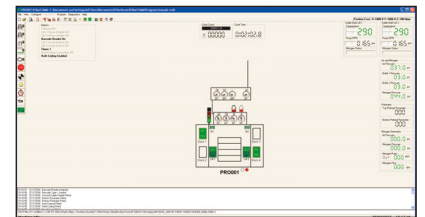


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DUPLEX TWIN SOLDER BATH ARRANGEMENT

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



## OPERATION

The Jade Pro 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.



SOLDER BATH REMOVAL/  
REPLACEMENT TROLLEY



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PILLARGEN 40/80  
NITROGEN GENERATOR

#### STANDARD FEATURES

Integral PC & Machine Mounted TFT Monitor  
Duplex Twin Independent Z Axis Solder Pots  
Auto Solder Top-Up (Wire Feed) & Solder Level Detect  
DC Servo Drives  
Manual Fiducial Correction System  
Solder Wave Height Measurement & Correction  
Pump RPM Monitoring  
Auto Nozzle Conditioning System  
Process Viewing Camera(s)  
Multilevel Password Protection System  
Inerted Nitrogen System  
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  
Universally Adjustable Tooling Carrier  
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 Compatibility  
Day-To-Day Service Kit  
Initial Solder Fill (63:37 only)

#### MONITORING OPTIONS

Flux Presence Sensor - Thermistor Style  
Flux Spray and/or Flow  
Pump RPM  
O<sub>2</sub> 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



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

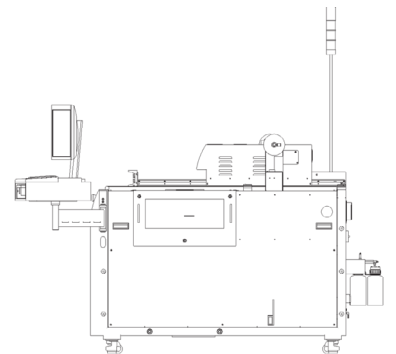
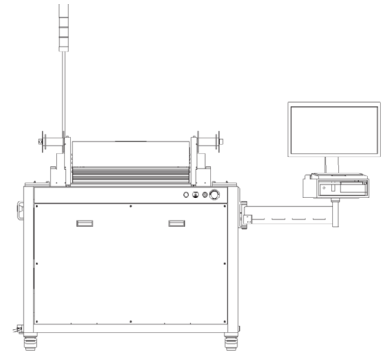
# JADE PRO



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## SPECIFICATIONS

Height:	1230mm / 48" to 2025mm / 80"- with light stack
Width:	1250mm / 49" to 1700mm / 67"- with side auto-changer
Depth:	1495mm / 59"
	1720mm / 68" with flux bottles
Board size:	457mm x 508mm / 18"x 20"
Edge clearance:	Above / below 3mm
Height clearance:	Above / below 40mm nominal 90mm 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 style - 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
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 :	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



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