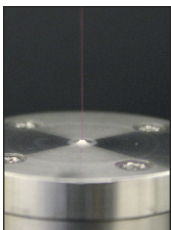
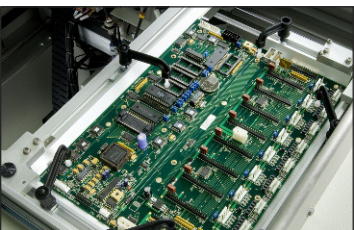


# JADE PRO



Pillarhouse  
INTERNATIONAL

Ultra flexible, offline, multi-platform selective soldering system



# JADE PRO

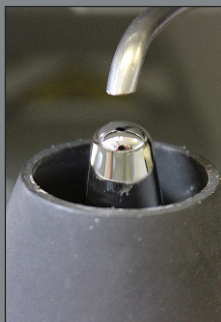
## Ultra flexible, offline, multi-platform selective soldering system



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 hand load system, incorporating a universally adjustable tooling carrier capable of accommodating PCBs or pallets up to 457x508mm. In its basic format, the Jade PRO is configured with a single solder bath. In the Jade PRO Duplex guise, the machine can be configured with twin adjacent solder baths on independent Z axis drives. This achieves increased production flexibility by permitting use of two different nozzle tip sizes which can be allocated as process requirements dictate within any particular area on a PCB.

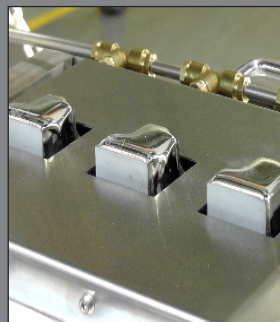
All of the above Jade PRO configurations can be offered with optional automatic heated solder bath change stations. Using this system the non-operational solder bath and pump system is stationed at one of two heated park positions located at either side of the main machine. This heated station maintains the correct solder temperature within the bath that is idle, so that when changeover occurs, the replacement bath can resume immediate production. A single automatic solder bath change station is identified as a PLUS configuration, whilst twin stations (located at both sides of the machine) are identified as PLUS PLUS configurations. On this basis Duplex machines with the PLUS PLUS identity will operate with 4 individual solder bath and pump systems.



NITROGEN PURITY ANALYSER



FLUX HEAD

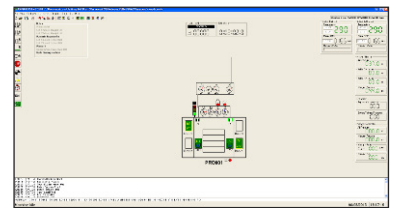


MULTI-DIP NOZZLE



### DUPLEX TWIN SOLDER BATH ARRANGEMENT

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

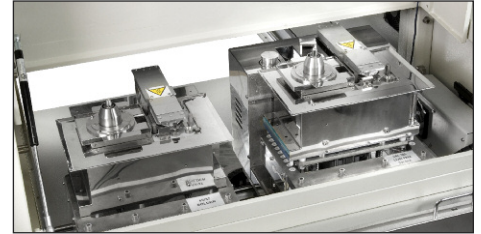


### OPERATION

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





#### PRO PLUS SIDE MOUNTED AUTO BATH CHANGEOVER

Solder baths are individually tagged so that incorrect solder alloys cannot be selected with respect to any specific customer generated program. The operational solder bath(s) has its own allocated solder feeder which is also tagged in order to prevent incorrect solder alloy top up.

#### STANDARD FEATURES

- DC servo drives
- Integral PC and machine mounted TFT monitor
- Inerted Nitrogen system
- Auto motorised wire solder feed & level detect
- Solder bath coding - identifies correct bath for program
- Drop-Jet fluxer
- Manual fiducial correction system
- Solder wave height measurement and correction
- Process viewing camera(s)
- Multilevel password protection
- Light stack
- Six AP style solder nozzle tips
- Internal fume extraction
- Colour programming camera
- PillarPAD offline programming system
- Universally adjustable tooling carrier
- Thermal nozzle calibration system using integrated setting camera - requires manual correction
- PillarCOMM Windows® based 'Point & Click' interface
- Lead-free compatible
- 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

#### SYSTEM OPTIONS

- Side mounted auto bath changeover - PLUS configuration
- Top-side instant IR preheat
- Bottom-side slide in / out instant IR preheat
- Closed loop pyrometer temperature control
- Bottom-side hot Nitrogen selective preheat
- Automatic fiducial correction
- Ultrasonic fluxing
- Dual Drop-Jet / ultrasonic fluxing
- Laser PCB warp correction
- Twin solder bath capability on independent Z axis
- Micro nozzle assembly
- Large solder bath for dedicated single dip applications
- Solder bath removal trolley
- Solder reel identification
- Larger PCB handling size

#### PILLARGEN-40/80 NITROGEN GENERATOR



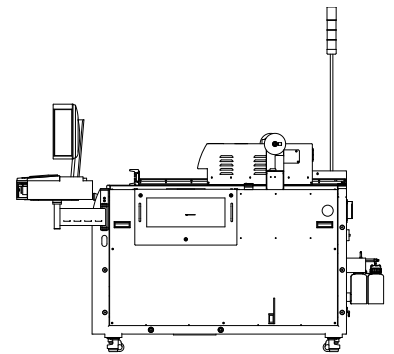
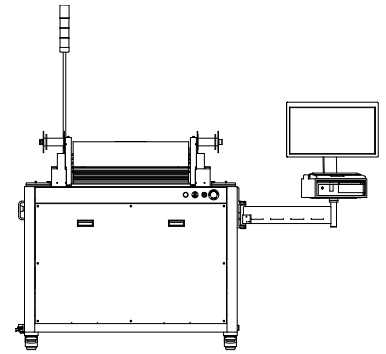
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## SPECIFICATIONS

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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