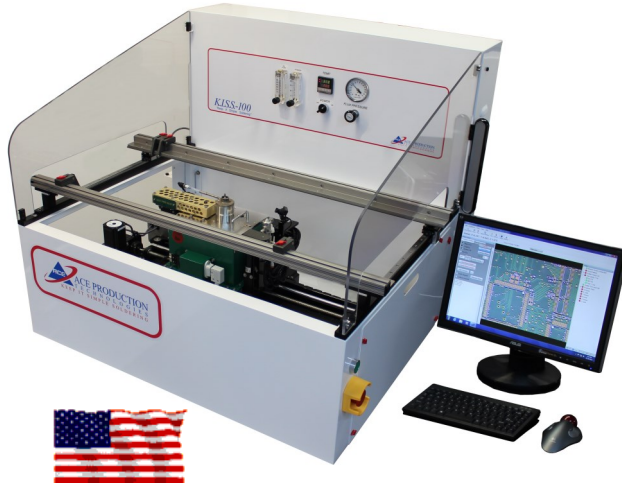


“Keep It Simple Soldering”

12” x 12” PCB Platform

(300mm x 300mm)



Made in America

The **KISS-100** is a full featured compact table top unit and by far the lowest cost automated selective soldering machine available. The PCB and through hole components are automatically fluxed and soldered using the proven “traveling mini-solder wave” soldering process.

The **KISS-100** includes the following:

Standard Features:

- Will process PCBs 12” x 12” (300mm x 300mm) and up to 24” (600mm) long PCBs using a manual “step over”
- Universal PCB location rails with multiple PCB positions
- **Automated Fiducial Correction**
- Windows 7 O/S with SWAK programming interface
- Programming camera (used for manual fiducial location)
- Rapid setup time to “first production” using the machine “teach” functions or available Offline programming
- Step and repeat capability in both X and Y axis for multiple boards in a panel
- Lead alloy solder pot and pump assembly included—lead free alloy (all titanium) and HMP alloy pot and pump available
- Programmable solder wave flow rate
- 6mm and 12mm “Bullet” nozzles
- Heated Nitrogen to the solder nozzle
- Precision KFS-SP atomizing flux applicator
- Set the time/temp profile for each individual component type for maximized process control and TAKT
- Absolute control over all critical process parameters:
 - Solder temperature interlocked to within 10°C
 - Height and travel speed of the solder wave
 - Programmable initial pre-heat soak time
- Set-up kit containing all necessary support tools
- One year warranty covering the entire machine and two years for the solder pot and pump assembly

Advantages:

Simple and Affordable.....

The **KISS-100** is used to solder through hole components on SMT boards within close proximity of adjacent components. This process overcomes the limitations and high labor costs of operator dependent soldering with a truly flexible automated flux application and molten solder delivery system.

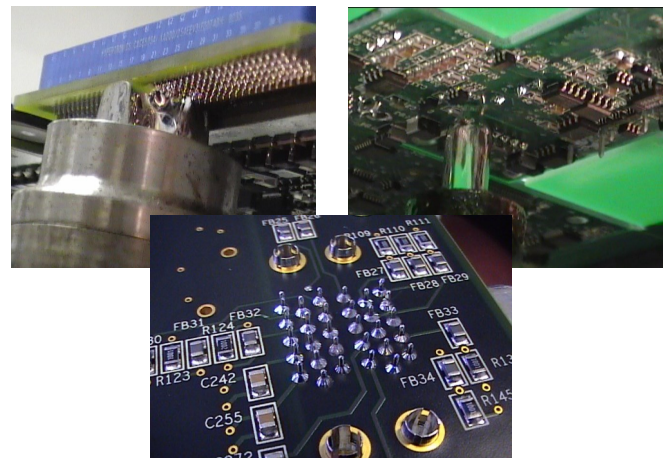
The **KISS-100** couples high throughput with precise process controls. The programmable features provide the tools to set all process parameters including solder height, flux speed, solder temperature, panelization programming, contact dwells, travel distances and speeds.. Once set, the system will repeat precisely.

The **KISS-100** will out produce 3 or more operators soldering with an iron while significantly increasing the solder joint quality and to a predictable schedule.

“You can expect a ROI of 2-3 months or less”

Process Overview:

The operator places the components into the PCB, then the PCB is placed onto the universal PCB location rails. The cycle is started by pressing the dual green buttons. The **Automated Fiducial Correction** identifies the start point. Flux is automatically applied to the solder sites. The mini solder wave is moved under the component to be soldered. The solder nozzle raises to “wet” the first pins. The solder wave travels the length of the component soldering the through hole leads to the PCB. At the completion of the travel the solder pot lowers and moves to the next site. All programmed sites are fluxed and soldered in the same cycle. An automated stepping function allows solder arrays of boards in an X-Y matrix. After completing the cycle the pot can be programmed to return to the start position ready for the next cycle.

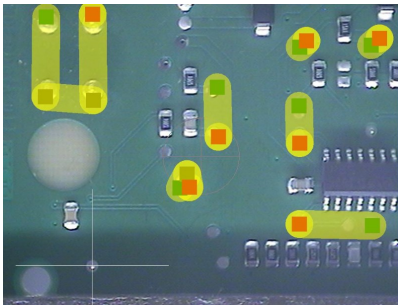


Programming:

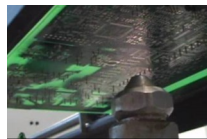
The programming is accomplished by one of two methods; on the machine or with the optional Offline Teach programming interface software. On the machine uses the set up camera viewed on the monitor and point-and-click method to set the flux and solder pattern in real time. Usually an average board can be programmed within 10 minutes. You can fine tune the X,Y and Z positions, speeds, solder wave height and other parameters to perfect the process.

Optionally, at your desktop import a JPEG (photo) or the Gerber file into the SWAK program. Pick the solder nozzle size (this becomes your cursor). Choose the start/stop positions for all devices to be soldered. The process path becomes highlighted and script is automatically created for you. Circular or angular interpolation allows the soldering of large round arrays in a spiral pattern and connectors not perpendicular to the X-Y plane (see the SWAK data sheet and video).

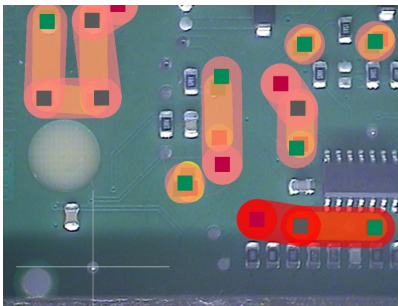
**Set the zero point, then choose the flux width and solder nozzle and "paint" the process paths.
It is that easy.....**



Programming the flux paths



Applying the flux



Programming the solder paths



Soldering the components

Options:

- Additional solder pot/pump assemblies for Pb, Sn or HMP alloys
- Additional "Bullet" or "Wave" solder nozzles and W-75mm wide wave nozzle for mass wave soldering
- Process witness camera
- Offline programming software
- Support bench (required for 220V)
- Universal PCB location rack with adjustable fingers to hold the PCB in position suitable for processing
- Skyhook fixture which fits on the PCB location rails and has adjustable 'hook' for pulling the bow from the PCB



Gen3 Systems Limited, Unit B2, Armstrong Mall
Southwood Business Park, Farnborough, Hants. GU14 0NR
Tel: 01252 521500 e-Mail: sales@gen3systems.com

ACE Production Technologies, Inc.
3010 N. First Street, Spokane Valley, WA 99216
(509) 924-4898 | <http://www.ace-protech.com>



KISS-100 on the optional support bench

KISS-100 Specifications:

PCB Panel Size

Minimum	Maximum
2" x 2" (50mm x 50mm)	12" x 12" (300mm x 300mm)

(can handle PCBs up to 24" x 12" (600mm x 300mm) with manual slide over)

Safe "Keep Away" (distance to adjacent pads) 1mm

Motion

- Z-Axis Accuracy/Repeatability +/- .002"
Speed .5 inches per second
- X and Y Axis Accuracy/Repeatability +/- .002"
Speed 1 inch per second

Solder Pot

- Temperature PID proportioning (0-400°C) ± 2°C
- Solder Capacity 30 lbs. (14kg)
- Pump PC controlled

Software

Windows 7 O/S and SWAK programming interface

Physical

- Dimensions
machine only: 41" wide x 38" deep x 32" high
(1041mm wide x 965mm deep x 812mm high)
w/support bench: 60" wide x 41" deep x 59" high
(1524mm wide x 1041mm deep x 1498mm high)
- Weight
machine only: 400 lbs. (180 kg)
w/support bench: 700 lbs. (317 kg)
- Load height on bench 44" high (1117mm high)

Facilities

- Power Domestic 120VAC/1 Ph/60 Hz 15 amps
International 208-230VAC/1 Ph/60 Hz 8 amps
- Air 90 (minimum) to 100 (maximum) PSI
- Nitrogen 99.999% pure, 30-50 CFH @ 60 (minimum) to 100 (maximum) PSI

Certificates of compliance:

OSHA, NEC, CE, UL, ULC

Call for a free video of the KISS machines and the selective soldering process