

RED-E-SET™

Providing advanced solutions for your board support requirements



About Us

Production Solutions continues leading the way in innovative solutions to the circuit board support area of manufacturing with the industry-leading **RED-E-SET™** models. These revolutionary systems are flexible, easily set up universal board supports that successfully handle the challenge of densely populated double-sided circuit boards and increased changeover.

Offering the widest range of patented products in the industry, from our cost effective GO! to our award winning ML series, our fully automated AS, and Ultra High Density and XL, we provide worry-free solutions that are proven to

reduce changeover time, improve quality, eliminate component damage, and increase machine uptime once implemented on any screen printer, pick-and-place, chip shooter or dispensing machine. Additionally, leading edge products like the SZ Platform take automation to the next level, advancing the goal of total hands and tool free board support, and the XL series are the longest supports in the industry.

With thousands sold worldwide and with the very first units built in 2000 still in use, **RED-E-SET** has proven to be a great investment with a very short ROI. Factory wide implementation

guarantee increased revenue from improved equipment utilization and reduction of costly rework. Add to that the highest quality of product, an industry leading guaranteed three-year warranty, ease of maintenance and the best customer service, the **RED-E-SET** is your first choice in board supports.

Whatever your board support requirements, we have the solution for you. Contact us today to start your free 30-day trial. Find out for yourself why **RED-E-SET** is the best-in-industry solution.

Benefits

- ▶ Reduce tooling changeover time
- ▶ Improve quality of first pass yields
- ▶ Increase revenue by greater uptime
- ▶ Eliminate component damage
- ▶ Replace expensive custom tooling plates
- ▶ Defer expensive capital equipment costs
- ▶ Low maintenance
- ▶ Three year warranty



RED-E-SET GO!



The **RED-E-SET GO!**, a cost effective PCB support solution for pick-and-place, AOI and SPI machines, using a patent pending, non locking, resilient pin and polyurethane design. The GO! removes board sag, dampens board bounce, and is entirely hands and tool free. Shipped from the factory set to the correct height, the GO! self adjusts and requires no setup, air, power or machine modification. Once placed in the machine, support tooling becomes hassle and worry free, making it the most flexible, easy to use support tool worldwide.

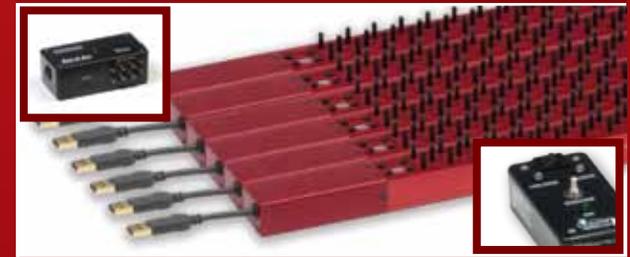
RED-E-SET ML (Manual Lock)



The **RED-E-SET ML** modules provide a flexible, cost effective, easy to use alternative to traditional metal support pin options. Utilizing a simple cam lock, the modules can be setup and locked at a fixed height in seconds, assuring complete and repeatable support for even the most challenging boards.

Delivered from the factory with the correct height and mounting, installation is “drop in” with no machine modifications.

RED-E-SET AS (Auto Set)



The **RED-E-SET AS** provides next-generation automatic board support ideally suited for users that want to minimize operator involvement. The AS is an electrically motorized unit that can be run in either “Reset per Board” mode or “Locked for Production Run” mode.

No machine modification is needed and can be controlled by its stand alone electronics or integrated into machine software (machine dependant). No air required and controls can be place virtually anywhere in the machine or removed after setup.



RED-E-SET SZ (Scissor Pallet)*

The next generation of automated board supports systems, **RED-E-SET SZ** is an installed self-adjusting board support platform that is completely hands and tool-free with the addition of the Red-E-Set Autoset or the GO! board support modules.

Installed in a matter of minutes without tools or machine modification, the SZ slide guides attach to the conveyors, keeping the pinned support modules equidistant to one another and providing a consistent, equal support across the board. Additional support modules can be added by simply placing the magnetic-based units on the SZ. The system supports a range of board widths and support lengths up to 24". For maintenance or removal, the SZ simply lifts out.

Once the SZ is installed, there is no need for operator intervention or involvement in the board support area. The SZ provides a worry-free solution that decreases changeover time, improves quality and increases machine uptime.



RED-E-SET VB (Vacuum Box)*



RED-E-SET VB is the latest patented product specifically for screen printers using vacuum box tooling. With traditional vacuum box tooling, changeover is time consuming and support can be inadequate. With the new **RED-E-SET VB** product, changeover time is reduced to less than five minutes and support is increased dramatically. By simply replacing the standard side chucks with our patented side plates, the printer can use the **RED-E-SET** board support tooling. The **RED-E-SET** modules are manually locked for quick setup.

RED-E-SET Tower*



The **RED-E-SET Tower** was developed for applications where PCBs are similar in size but have different component layouts. The tower is motorized to minimize changeover time.

RED-E-SET HD (High Density)* & UHD (Ultra High Density)*



RED-E-SET HD and **UHD** are the latest in high density and ultra-high-density board support. Designed to improve productivity by replacing costly dedicated PCB support tooling the Ultra HD's universal flexibility eliminates the need for new custom tooling plates for each board revision while providing superior support. Ideal for users that typically run similar board dimensions but change board layouts frequently, have panelized boards or highly populated boards. The Ultra HD offers



the support coverage of dedicated tooling but with the flexibility of universal tooling. Ultra HD modules are made to the user's board dimensions and come standard with 0.335" (8.51 mm) X .375" (9.53mm) pin spacing.

RED-E-SET HD spacing is available in most of our standard modules and with its slim design is ideal for varying board width applications.

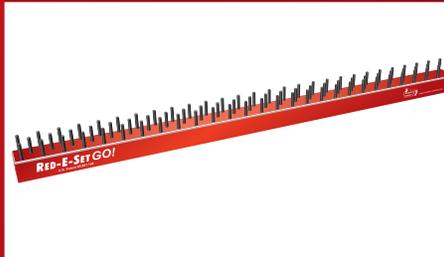
RED-E-SET Board Flattening Tool



Ensuring the board flatness is a critical step in getting the best out of board support tooling. To achieve this, Production Solutions offers both a Press Plate for Screen Printers and Topside Adjustable Tooling for placement machines. Both of these tools are used during setup only.



RED-E-SET XL



The **RED-E-SET XL** address's the support needs of large panel manufacturers starting at 24" long modules up to 60" long.

The 24" units utilize both the spring technology used in the ML series and the polyurethane used in the GO!

Modules longer than 24" utilize the GO! technology with a variety of firmness's available.

RED-E-SET Semi*



The **RED-E-SET Semi** was designed to replace the entire tooling nest for semiautomatic screen printers. Included are the tooling rails, tooling pins and side snuggers. Everything needed is provided in one convenient package to drop directly onto the printer's tooling table. Once installed, the **RED-E-SET Semi** will provide fast changeover and full support.

Dimensional Specifications – Inline Modules

Lengths:

6" (152.4mm)

16" (406.4mm)

18" (457.2mm)

24" (609.6mm)

Motorized Autoset modules, add 3.5" (88.9mm).

Custom lengths available.

Width:

1.32" (33.53mm)

Custom widths available.

Heights (not including standoffs and mounting hardware)

ULP (Ultra Low Profile) – .917" (23.29mm)

LP (Low Profile) – 1.301" (33.05mm)

HP (High Profile) – 1.766" (44.86mm).

Custom heights available.

Pin Densities

Standard pitch: .750" (19.05mm) X .335" (8.51mm).

High Density pitch: .335" (8.51mm) X .375" (9.53mm).

Custom densities available.

Below Board Clearance

ULP (Ultra Low Profile) – .261" (6.63mm)

LP (Low Profile) – .431" (10.95mm)

HP (High Profile) – .641" (16.28mm)

Mountings Methods

The *Red-E-Set* modules can be configured to mount on any steel, aluminum or phenolic table. Modules come from the factory ready to install, and with interchangeable mounting hardware the Red-E-Set can be moved between machines protecting your tooling investment.



Registration Pins



Screw Down



Standoff Blocks



Standoff with Magnet



QuickSet

* Patented or Patent Pending

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