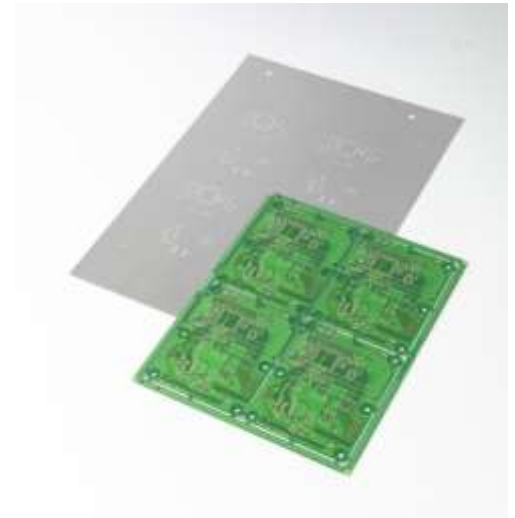


## Introduction

Eurocircuits have launched 2 machines to help their **prototype and small batch** customers achieve professional quality **soldering of surface-mounted components** without the need for a massive investment. Prototype designers, under pressure to get new products to market, cannot afford to spend time debugging a new design only to find that the fault is due to a poorly soldered component. Small batch manufacturers know that their customers demand the highest levels of quality and reliability, but time spent fault-finding a defective joint comes straight off the bottom line.

The new machines, the **eC-stencil-mate** screen printer and **eC-reflow-mate** reflow oven have been designed and developed exclusively for Eurocircuits by a well-established industrial design company. They offer the same levels of accuracy and control as high-end automatic and semi-automatic machines but at a much lower cost and with greatly simplified set-up and operation.



## eC-stencil-mate



Fast, precise and economical solder-paste printing even for the shortest run.

- **Vertical separation** of board and stencil – critical for accurate fine-feature printing
- Uses Eurocircuits low-cost laser-cut stainless-steel stencils
- Magnetic place holders and supports give sufficient manipulation possibilities to allow printing on the second side of a board that already carries components.
- **Simple pin-registration** system based on identical tooling holes in PCB and stencil – accuracy without complex manual set-up time
- Excellent **registration repeatability** – critical for small series printing
- No clamping holes needed to support the stencil.
- Rigid aluminum construction for accuracy and repeatability

<b>Maximum PCB size</b>	<b>350 x 250 mm</b>
Dimensions	670 (d) x 470 (w) x 190 (h) mm
Weight	Ca 19 kg

"Modifications and mistakes reserved"

## eC-reflow-mate



- Quartz IR lamps in the bottom and top part of the oven allow **preheating** and a subsequent **fast heat-up** for optimum control of the soldering cycle.
- Ducted **forced-air circulation** to ensure an even temperature throughout the oven
- **Unlimited user-defined soldering profiles** controlling temperature and time settings across 6 zones for optimum soldering quality
- **Profiles set up and stored on PC** via easy-to-use **eC-reflow-pilot** software
- Micro-processor control on **oven stores up to 5 profiles** for convenient standalone operation.
- **LCD display** on machine with 3 buttons to select the profile, start and stop the process, open the drawer etc
- Drawer access for easy loading and unloading
- Large window on front for **visual process-checking**
- **Drawer opens automatically** after reflow to ensure fast cooling to minimise board stress
- A separate **temperature sensor can be placed on the PCB** to measure and display the temperature actually on the board for optimum control
- **Insulated casing** to minimise energy loss and ensure safe operation
- Compact footprint

Solder types	Leaded and unleaded
<b>Maximum PCB size</b>	<b>350 x 250 mm</b>
Heating method	Quartz IR and ducted forced hot-air
Temperature range	Up to 288°C
Temperature control method	+/- 20°C boost function
Programming	Windows-compatible software
PC link	USB port
Electrical requirements	230V AC - 50Hz
Power requirements	max 3000W
Dimensions	520 (d) x 620 (w) x 245 (h) mm
Weight	Ca 25 kg

"Modifications and mistakes reserved"

## eC-reflow-pilot

Flexible, easy to use software controlling all aspects of reflow soldering operation

- **Full control** of oven operation
- Setting up and storage **unlimited soldering profiles** controlling temperature and time settings across 6 zones for optimum soldering quality and flexibility
- **Automatic recording** of oven temperatures over time
- **Display of temperatures** in oven, on PCB, and on casing
- Graphic display and adjustment of reflow profiles