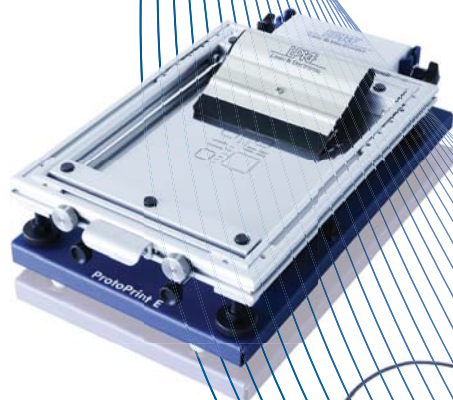


Economical Solution for SMT assembling  
LPKF SMT – E line

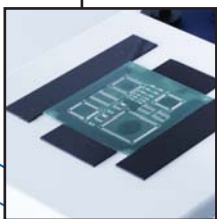
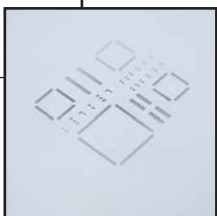


# LPKF SMT – E line

## Equipment for SMT assembly in PCB prototyping

The LPKF SMT E series is a specially designed, economical solution for rapid PCB prototypes. The products in the series cover three main steps of SMT assembling process: printing, placing and soldering. All three satisfy the needs for cost-effective, easy to use, reliable assembling of prototypes and low-volume production. This is a perfect solution for beginners and for professionals, as well as for applications in an educational environment, where the necessity for early introduction of the surface mount technology and processes is growing steadily.

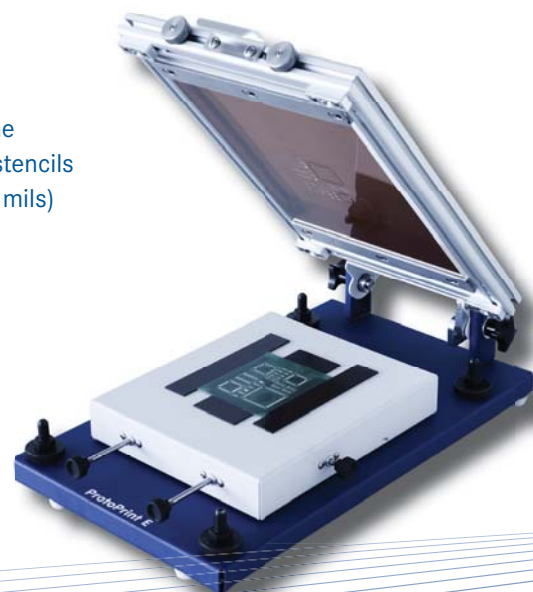
- Compact and ergonomically designed
- Economical solution
- Ideal for prototypes and small series
- Suitable for beginners and professionals
- Convenient for educational purposes



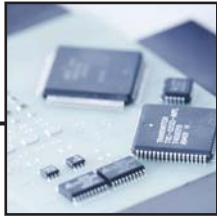
### ProtoPrint E

The LPKF ProtoPrint E is a synonym for simple, affordable and reliable manual SMT printing, allowing prototypes and small series of pitches down to 0,625 mm (25 mils), and size 160 x 200 mm to be done rapidly. This compact desk top printer provides numerous possibilities, from stencil, screen, gap, to on-contact printing, either with polymer or metal stencils. A double-sided mechanical quick release frame for frameless stencils is part of the system.

- On-contact and gap printing
- Integrated quick release frame
- Supports metal and polymer stencils
- Down to pitch 0,625 mm (25 mils)
- Fine adjustment in all axes



## ProtoPlace E



The LPKF ProtoPlace E is an intuitive, ergonomically designed pick & place, where components can be picked up from 14 antistatic bins using a vacuum pipette. A movable hand rest provides a stable support for the operator's hand while placing components. The vacuum switch and the pipette holder can be easily displaced to utilise left or right handed operators. Vacuum is generated by a low-consumption, low-noise vacuum pump, which requires only a mains connection.

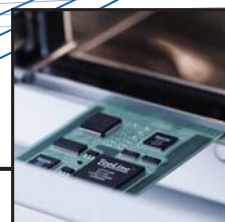
- Placing of 0603 chip components, SOIC, SOT, QFP (0,8 mm pitch)
- Exchangeable antistatic bins
- Left and right hand operation
- Low noise vacuum pump

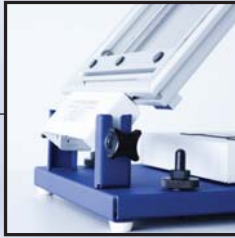


## ProtoFlow E

The LPKF ProtoFlow E is a compact, fully convectional and easy to use oven, suitable for lead-free reflow soldering of PCBs measuring up to 160 x 200 mm. Menu navigation makes the profile programming and parameter setting extremely easy, allowing a beginner or an expert to successfully solder a PCB in a few minutes. Ergonomic design incorporates a four arrow keyboard and a LCD to access all functions of the oven. Manually driven, see-through drawer, and the illuminated interior of the oven reveals the current status of the soldering process and allows on-the-fly job modification. The heater design and precisely controlled air temperature provide even heat distribution over the whole PCB surface. Optionally, the ProtoFlow E can be connected to a PC via a USB port for faster and more convenient profiling.

- Fully convectional
- Lead-free reflow process
- Temperature up to 320 °C
- Multi-zone temp./time profiles
- Optional USB connectivity





#### Technical data: all products

PCB size (max.)	160 x 200 mm (6.3" x 8")
PCB thickness	0,5 - 3 mm (12 - 80 mils)
Ambient conditions	Temperature: 15 - 30 °C, Humidity: 30 - 80 %

#### Technical data: LPKF ProtoPrint E

Frame type	ZelFlex QR 266x380 (part of system)
Foil size (max.)	214 x 310 mm (8.4" x 12.2")
Print stroke	Manual, 220 mm
Squeegee	Metal, 180 mm (7.1"), (standard delivery)
Print table adjustment	X and Y $\pm 5$ mm (0.2"), $\pm 95^\circ$
Minimum pitch	0,625 mm (25 mils)
Dimensions ( W x H x D)	270 x 115 x 470 mm (10.6" x 4.5" x 18.5")
Weight	8 kg (17.6 lbs)

#### Technical data: LPKF ProtoPlace E

Min. size of components	0603, mini-melf, SOIC, SOT, QFP44 (0,8 mm pitch)
Power supply (vacuum pump)	230 V, 50-60 Hz, 6 VA
Dimensions of basic device (W x H x D)	485 x 80 x 280 mm (19.1" x 3.1" x 11")
Weight	5,8 kg (12.8 lbs)

#### Technical data: LPKF ProtoFlow E

Max. preheating temperature, time	220 °C, 999 s
Max. reflow temperature, time	320 °C, 600 s
Max. long thermal treatment temp., time	220 °C, 64 h
Temperature stabilization time	< 5 min
Power supply	single phase 220-240 V, 50-60 Hz, 1650 W (max.)
Dimensions ( W x H x D)	400 x 280 x 380 mm (15.7" x 11" x 14.7")
Weight	18 kg (40 lbs)

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