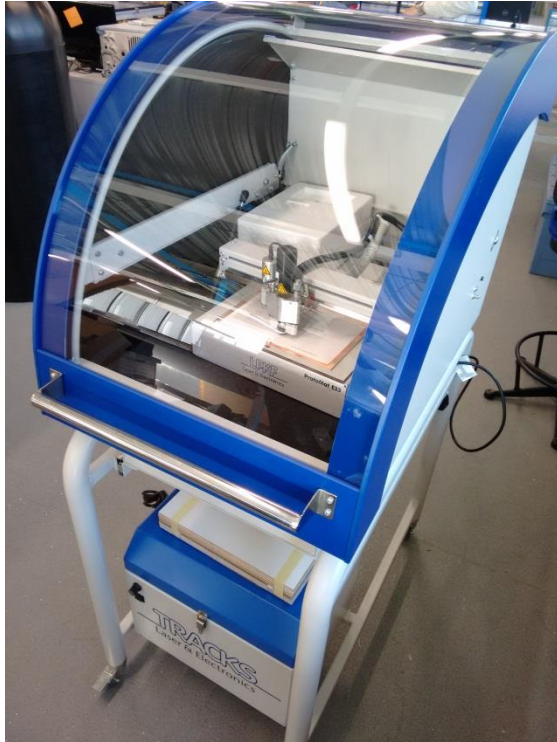


LPKF ProtoMat E33 PCB Fabricator



The ProtoMat E33 is a PCB Fabricator used to mill and drill printed circuit board prototypes from copper FR4 boards and aluminium boards. With a maximum travel speed of 60 mm per second (approx. 2"/s), a spindle speed of 33,000 rpm and a drill speed of 100 holes per minute, the E33 is an ideal model for in-house prototyping.

The device consists of a drill unit, a protective cover and an extraction unit. The drill unit and extractor are software controlled using the LPKF Circuit Pro software installed on the BIC VD007 laptop. The drill heads are exchanged manually with a useful collection of tools. LKPF also provided a rivets kit to assist in double layer board production

Benefits of the ProtoMat E33

The benefits of the ProtoMat E33 include:

- Used for compact, low-noise prototyping of analogue and digital electronic circuits; this is better than strip board prototyping, because low noise is essential for building ultrasonic non-destructive testing equipment.
- Rapid in-house prototyping; the device reduces fabrication time (from three weeks to one hour), cost and scale of production. BIC currently has the ability to fabricate and test printed circuit boards immediately after design, leading to more time to test and constantly improve designs.
- The machine is portable and modular and therefore can be moved and set up very quickly if required.
- With a resolution of 0.8µm this device is capable of fabricating circuit boards with small clearance between tracks and components. The device will also create circuits with complex shapes or compact space requirements which can fit in a variety of bespoke compartments.
- The device comes with a metal filings extractor system and a protective cover which prevent contact with sharp moving objects and tiny metal particles; this ensures the device is low risk.
- The mill/drill unit is software-controlled increasing efficiency and reliability while reducing time taken to produce the boards
- The equipment software is compatible with our in-house circuit board design software (Altium Designer) and most major circuit board design formats which smoothens the process from design to fabrication