










LPKF ProtoMat H100

Fully Automated for High-Performance Rapid PCB Prototyping

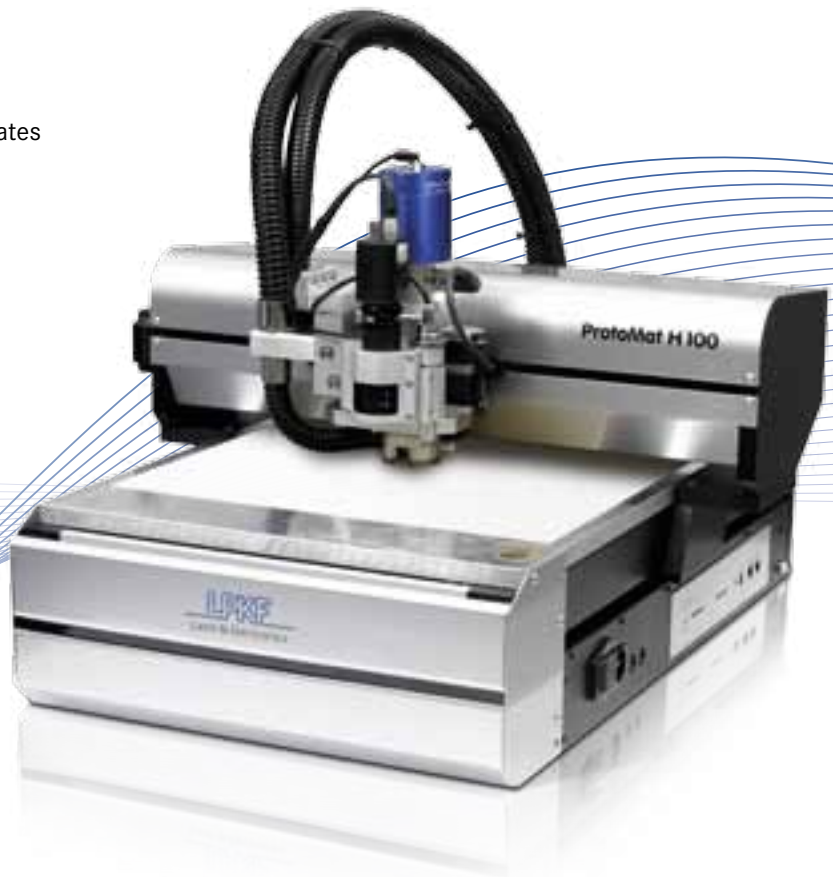
Product: LPKF ProtoMat H100
Part no.: 111424
Ordering info: See front sleeve

Applications

-  Milling/drilling 1- & 2-sided PCBs
-  Milling/drilling RF- & microwave substrates
-  Multilayer PCBs up to 8 layers
-  Contour routing circuit boards
-  Flexible and rigid-flex circuit milling
-  Front panels/sign engraving
-  Machining cut-outs in front panels
-  SMD stencil cutting
-  Inspection templates

380 mm (15")
365 mm
(14.4")

**Also ideal for
large substrates**



The ProtoMat H100 is a top of the line LPKF circuit board plotter. The ProtoMat H100 is the perfect system for the fully automated in-house production of complex PCB prototypes, especially for RF- or microwave applications. The high speed and precision ensure it produces the latest generation PCBs. The pneumatic non-contact working depth limiter allows substrates with delicate surfaces to be machined.

With a 30-position tool changer and a large working surface able to handle up to 380 x 365 x 14 mm (15" x 14.4" x 0.55"), it's a first-class tool for any prototype or small batch production. The highly automated operation for ease-of-use is the foundation for cost-effective and high-quality production.

- Fully automated operation
- Spindle speed up to 100,000 rpm, resolution 0.25 μ m, repeatability 0.001 mm
- Automatic 30-position tool changer
- Automatic milling width adjustment
- Pneumatic non-contact working depth limiter
- Optical fiducial recognition
- Built-in vacuum table

Features



Fully equipped

The ProtoMat H100 is fully equipped, no upgrades required. Even a dust extraction unit is included, and can optionally be built into the spacious acoustic cabinet.

Other options and tools starting on page 19.

Applications



RF- and microwave PCBs

RF- and microwave prototypes require special substrates to be processed, such as PTFE-based or ceramic-filled (RO4000) substrates, in addition to superior structuring accuracy. The H100 meets all of these requirements with high accuracy.

Flexible and rigid-flex PCBs

Then non-contact working depth limiter combined with the built-in vacuum table make the ProtoMat H100 virtually predestined for processing flexible or rigid-flex PCB materials for today's high-end applications. Whether prototypes or small batch production, the H100 quickly delivers high-quality production results.

Technical Specifications: LPKF ProtoMat H 100

Part no.	111424
Max. material size and layout area (X/Y/Z)	380 mm x 365 mm x 14 mm (15" x 14.4" x 0.55")
Resolution (X/Y)	0,25 µm (0.01 mil)
Repeatability	± 0.001 mm (± 0.04 mil)
Precision of front-to-back alignment	± 0.02 mm (± 0.8 mil)
Milling spindle	Max. 100,000 rpm, software controlled
Tool change	Automatic, 30 positions
Milling width adjustment	Automatic
Tool holder	3.175 mm (1/8"), pneumatic release holder
Drilling speed	120 strokes/min
Travel speed (X/Y)	Max. 150 mm/s (6"/s)
X/Y-drive	3-phase stepper motor
Z-drive	Pneumatic, 14 mm (0.55")
Dimensions (W x H x D)	650 mm x 430 mm x 750 mm (25.6" x 17" x 29.5")
Weight	50 kg (110 lbs)
Operating conditions	
Power supply	115/230 V, 50 – 60 Hz, 300 W
Compressed air supply	6 bar (87 psi), 100 l/min (3.5 cfm)
Required accessories	Exhaust, included

Technical specifications subject to change.