

Comparison of LPKF Circuit Board Plotters

Performance and Features

Property	ProtoMat E34	E44	S63	S103	D104
Working area (X/Y)	229 mm x 305 mm (9" x 12")	229 mm x 305 mm (9" x 12")	229 mm x 305 mm (9" x 12")	229 mm x 305 mm (9" x 12")	229 mm x 305 mm (9" x 12")
Mechanical resolution (X/Y)	0.8 µm (0.04 mil)	0.8 µm (0.04 mil)	0.5 µm (0.02 mil)	0.5 µm (0.02 mil)	0.3 µm (0.01 mil)
Travel speed (X/Y)	100 mm/s	100 mm/s	150 mm/s	150 mm/s	100 mm/s
Repeatability	± 0.005 mm (± 0.2 mil)	± 0.005 mm (± 0.2 mil)	± 0.001 mm (± 0.04 mil)	± 0.001 mm (± 0.04 mil)	± 0.001 mm (± 0.04 mil)
Precision of front-to-back alignment	± 0.02 mm (± 0.8 mil)	± 0.02 mm (± 0.8 mil)	± 0.02 mm (± 0.8 mil)	± 0.02 mm (± 0.8 mil)	–
Working area (Z)	10 mm (0.4")	10 mm (0.4")	35 mm (1.4")	22 mm (0.9")	10 mm (0.4")
Mechanical resolution (Z)	0.85 µm (0.033 mil)	0.85 µm (0.033 mil)	0.2 µm (0.008 mil)	0.2 µm (0.008 mil)	0.2 µm (0.008 mil)
Travel speed (Z)	20 mm/s	20 mm/s	25 mm/s	25 mm/s	25 mm/s
Spindle speed	30 000 RPM	40 000 RPM	60 000 RPM	100 000 RPM	100 000 RPM
Drilling speed	100 strokes/min	100 strokes/min	120 strokes/min	120 strokes/min	120 strokes/min
Temperature sensor	–	–	•	•	•
Dispenser	–	–	•	•	–
Software LPKF CircuitPro	•	•	•	•	•
Automatic tool change	–	–	15	15	15
Vacuum table	–	–	Optional	•	•
Optical fiducial recognition	–	•	•	•	•
Acoustic cabinet	Optional	Optional	•	•	•
Automatic milling width adjustment	–	–	•	•	•
Working depth limiter	Mechanical	Mechanical	Mechanical	Pneumatic	Pneumatic
StatusLight	–	–	Optional	Optional	•
Ports	1 x USB	2 x USB	2 x USB	2 x USB	2 x USB
Footprint (W x D)	370 mm x 450 mm (14.6" x 17.7")	370 mm x 450 mm (14.6" x 17.7")	670 mm x 840 mm (26.4" x 33")	670 mm x 840 mm (26.4" x 33")	660 mm x 870 mm (26" x 34.3")
Weight	15 kg (33 lbs)	15 kg (33 lbs)	58 kg (127 lbs)	60 kg (132 lbs)	99 kg (218.3 lbs)
Compressed air supply required?	Not required	Not required	For dispensing 4 bar (58 psi) 50 L/min (1.76 cfm)	For operation 6 bar (87 psi) 100 L/min (3.5 cfm)	For operation 6 bar (87 psi) 100 L/min (3.5 cfm)
Upgrade	–	–	S63 to S103	–	–

• = Standard

– = Not available

Optional = Optionally available as upgrade or accessory

Technical specifications subject to change.

