

# fastrout

THE ART OF ROUTING



### **Very fast rout path calculation**

Constant feed for high speed routing in curves

### **Linear motors on X, Y and Z axes**

Highest path accuracy available in routing

### **Inverted spindle rotation**

Prevents copper lift-off

### **Controlled depth routing**

Mean-Level-, Topo- and Contact- routing

### **Pinless routing**

Pressure-pad holds parts in place for final cut

*UltraSpeed*

Machine features	
Number of stations	6
Workpiece format on X axis	546.0 mm (21.5")
Workpiece format on Y axis	685.0 mm (27.0")
Velocity of Y axis	60 m/min (2362" min <sup>-1</sup> )
Mineral cast base specially designed for linear motors	Coefficient of linear expansion: 12µm·°K <sup>-1</sup> ·m <sup>-1</sup> (same as steel)
Brush pressure pad	✓

Posalux CNC 3000 controller	
Real time UNIX operating system	
Graphical man-machine interface with touch screen	
All software developed by Posalux	
Routing software with tool radius compensation	
Special tool radius compensation software for high speed routing	

Quality assurance (according to Posalux standard)	
Routing accuracy	±50 µm (±2 mil")

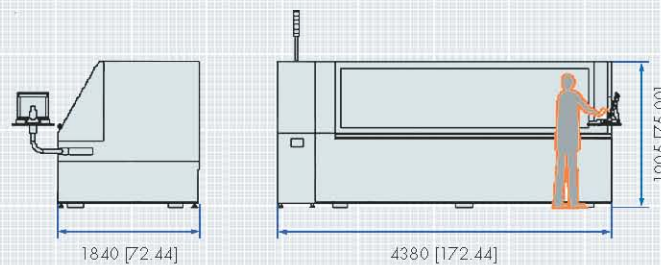
Linear motors on all axes	X-Axis	Y-Axis	Z-Axis
Velocity	50 m/min (1968" min <sup>-1</sup> )	50 m/min (1968" min <sup>-1</sup> )	30 m/min (1181" min <sup>-1</sup> )
Acceleration	8 m/s <sup>2</sup> (0.81g)	12 m/s <sup>2</sup> (1.22g)	40 m/s <sup>2</sup> (4.1g)
Resolution of measuring system	0.1 µm (0.004 mil")	0.1 µm (0.004 mil")	0.1 µm (0.004 mil")

Options	
Air dryer	
BBD - Tool break monitoring on M15 by contact drill	
BBD - Tool break monitoring on M16 by light barrier	
DL - Tool diameter and length measuring station	
Pinless routing - Pressure-pad holds parts in place for final cut	
Software for stretching or shrinking	
SPC - Statistical process control	
BDE - production data logging (DNC system is needed for data processing)	
Merge station - To rout large size panels across multiple stations	
Inverted rotation - Spindles turn clockwise or counter-clockwise to avoid copper lift-off in plated slots	
Tool cleaning station	

Asynchronous spindles HF125 (on air bearings)	
Nominal rotation speed	15 - 125 krpm
Routing capacity	Max. 2.4 mm (3/32")
Tool shank diameter	3.175 mm (1/8")
One individual spindle drive for increased reliability	✓

Controlled depth routing option	
Mean level routing	
Topo-routing software by using Contact Drill ± 20µm for remaining material thickness	
Contact routing	

Cassette Tool management	
Capacity	220 tools / station
Tool change time including diameter and length measurement	17s



Mass: approx. 8'250 Kg [18'208 lb]  
Localized load: 3 leveling points on the floor

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