Posalux MULTIFOR drilling/routing machines

High automation performance demands time-proven quality machines. Whether you select a machine for manual, semi-automatic, or multi-machine automation, Posalux offers one proven design in four table sizes to meet your production requirements. The table on this page shows the X-Y travel for each machine and the maximum workpiece size for each station in various station configurations. All models feature a full-sized granite base with extra-rigid upper structure for optimum dynamic stability. All table support and guiding is via low-compliance air bearings. The "X" table straddles the "Y" table and is designed for maximum vertical stiffness with supports at its outer edges. Spindle-to-table accuracy is ± 0.2 mil (± 5 microns). Each machine can be configured with a wide variety of spindles, workpiece tooling, and options listed below. Twin-spindle drilling with automatic adaptation of part programs, is a popular Posalux option for even greater productivity.

Posalux spindles are specially designed for high accuracy, minimum runout, and long life under the most demanding production conditions. They feature continuous air cleaning of the collets, tachometer feedback of rotational speed, temperature monitoring, and protection against overload. Five spindle types are available: the HF 30.5 (high torque, ball bearing, 3-30 krpm) for heavy duty routing of PCB’s and non-ferrous metals; the HF 80 (air bearing, 15-80 krpm) for general drilling and routing; the HF 110 (air bearing, 15-110 krpm) for drilling smaller holes and light routing; the DHF 150 (air bearing, 30-150 krpm) for microdrilling; and the new LHF 110 (air bearing, 15-110 krpm) direct drive, moving rotor spindle for full range, high volume drilling (available on the Multifor 25Z).

Fast, efficient tool management systems.

Preloaded magazines for extra speed in loading tools. New 10-tool magazines with barcodes can be preloaded by your tool supplier, eliminating individual tool handling in the drill room and greatly speeding up loading into the machine. With provisions for up to 36 magazines and a 130-tool buffer cassette per station, over 1200 tools can be available at each station for long runs and minimum operator intervention. The magazines provide visual separation between new and used tools. Used magazines can be exchanged for new ones while the machine is running a program. The exclusive Posalux automatic dual collet changer accomplishes a tool change in 16 seconds (from 60 krpm). Pre-ringed or ringless tools can be accommodated. The photographs show a partially loaded tool magazine holder and four preloaded 10-tool magazines.

Posalux patented tool cassettes for efficient tool handling.

A patented cassette-type automatic tool management system with the same 16-second tool change time is standard on Posalux Multifor drilling/routing machines. Tools can be prepared and loaded into cassettes away from the machine. Standard cassette organizations are matched to part programs by the CNC controller. Cassettes are available from 96 to 342-tool capacity and with visual separation of new and used tools.

<table>
<thead>
<tr>
<th>Workstations/Table size [inches (mm)]</th>
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<tr>
<td>Multifor Model</td>
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<td>M 10</td>
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<td>M 14</td>
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<td>M 22</td>
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<td>M 25-Z</td>
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CNC 2000 Plus Controller speeds program execution.

Designed exclusively for PCB drilling and routing, Fast bipolar design features a floating point processor with a standard non-volatile 512K CMOS memory (30,000 blocks) which can be expanded to 2 Mb (160,000 blocks). Up to 8 different part programs can be stored simultaneously. Switchable inch-metric display and over 600 diagnostic codes included.

Popular options available on Multifor machines.

- Real-time broken tool detection with automatic tool change and reload of missing holes.
- Automatic change of pressure foot inserts to match clearance hole to tool diameter.
- Dynamic measurement of tool diameter, runout, and length.
- Precision depth control to ± 0.0025 mm from the top of each stack.
- Optical analysis with automatic program compensation.
- "Stretch-shrink" software.
- Transcoding software for all popular program formats.
- Preparation for automation.
- Standard table tooling with 2-point clamping or custom table tooling.
- Twin spindle per station drilling.

Posalux Multifor machines are the best built, most dynamically stable for precision drilling and/or routing of printed circuit boards. Count on them to maintain their outstanding performance over a long, useful life.