

PCB Singulation Router with Dust Extraction Channels. Low stress singulation of tab routed PCB panels.



Safely singulate PCB panels by finish routing tabs.

Depanelize boards with overhanging components.

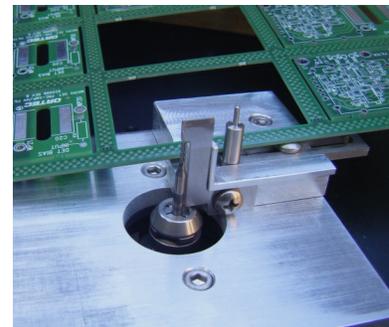
Adjustable spindle speed up to 35,000 RPM

Built in dust extraction channel.

Adjustable guide pin positions for curved panels.

Singulate panels of any size.

Dust extractor vacuum available separately



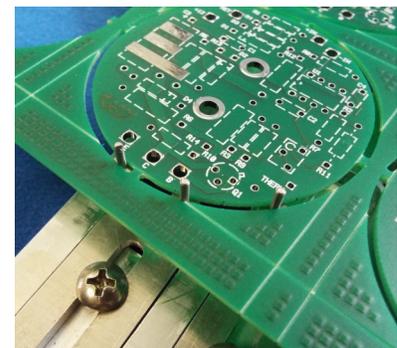
The R100 is a high speed table top PCB router with built in dust extraction channels. This tool is intended to be used to finish singulating tab routed PCB panels by manual operation. For round panels, two or three guide pins can be set along the radius of the panel to keep the panel on the routed path while the tab is milled. Tabs on straight routed panels can be milled in a straight line using the flat guide blade mounted behind the router bit.

To operate, switch on the machine and set the speed to 30,000 rpm. For standard square and rectangular panels, the guide blade mounted behind the router bit makes it easy to place the routed channel in the right position to mill tabs in one row without needing to re-position the board. The standard machine comes with one a set of guide pins and flat guide blades for routing .092 and .064" routed channels.

The height of the router bit is adjustable by means of a crank on the side of the machine which brings the entire spindle up or down. Bit replacement is done quickly by bringing the spindle up from the machine.

Two tool holding blocks are provided with the R100. The first holds a flat guide blade which is designed to make it easy to route the tabs from a rectangular panel. The second provides 3 adjustable guide pins which can be set for any size round panel. Standard guide pins or guide blades are provided for 0.125", 0.092" and 0.062" routed sections.

Other sizes to match milling bits are available on request.



Router Bits 1/32" 3/64" 1/16" 3/32" 1/8"

01-0100R Router

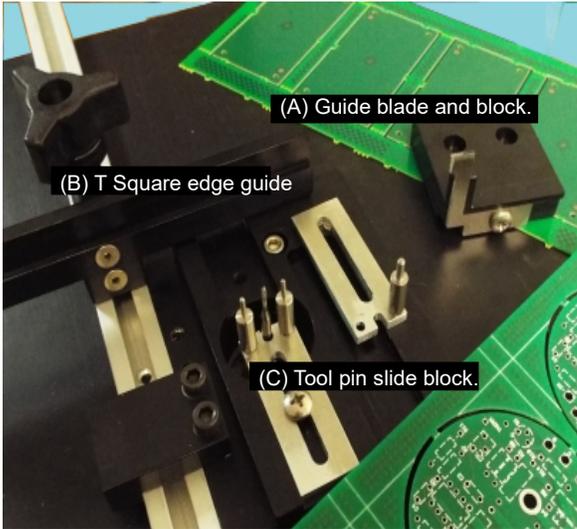
01-0031R .0313" Dia. Milling Fishtail Router Bit 1/32

01-0047R .0469" Dia. Milling Fishtail Router Bit 3/64

01-0063R .0625" Dia. Milling Fishtail Router Bit 1/16

01-0094R .0937" Dia. Milling Fishtail Router Bit 3/32

01-0125R .1250" Dia. Milling Fishtail Router Bit 1/8

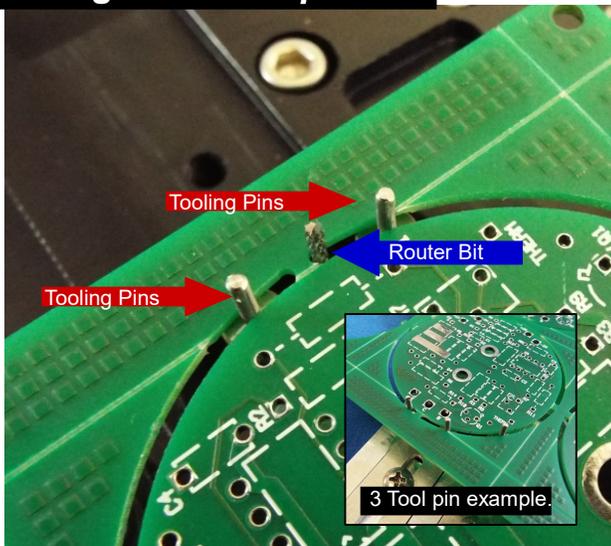


The R100 is provided with 3 tooling options to help position and guide the router bit into and along the routed channels, assuring that the milling path follows the perimeter of the PCB panel as the tab is being removed.

1 For straight line routing of rectangular boards, the guide blade and tooling block (A) is positioned behind the router bit as shown below. The routing channel is inserted over the guide blade and the board is brought forward to mill the tab off. As an additional aid to making sure the board is moved forward in a straight line, the T slide (B) can be positioned so the edge of the panel can be set against it during the process.

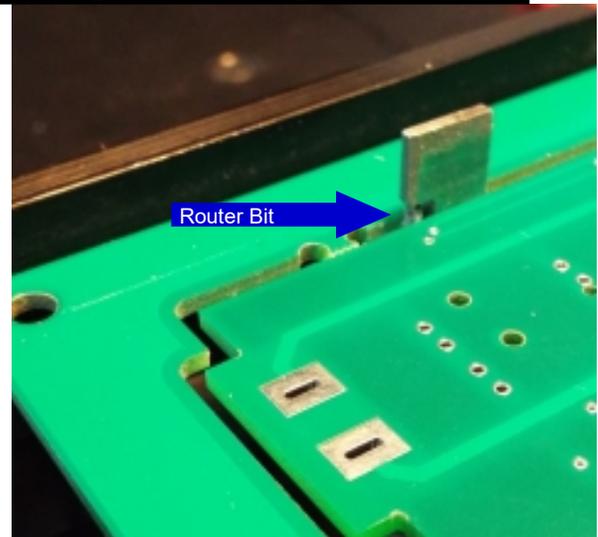
2 Round panels are accommodated by up to 3 tooling pins (C) which can be set to guide the milling path of the router bit along the perimeter of the panel. By fixing the guide path along the 3 or 4 points of guide pin and router bit the operator is assured of a clean and true separation of the panel. Rectangular panels can also be singulated using this set-up by setting the pins in a straight line and using the T-Square as an additional aid in keeping board and router bit aligned to the perimeter of the panel.

Tooling for round panels



Two tooling pins (one in front and one in back of the router bit) can be set so the three points of router bit and tooling pins are aligned along the perimeter of the panel. This guides the milling path of the router bit for clean separation of tab from panel. For larger panels, a third tooling pin can be set further along the perimeter to provide an additional point of support. Tooling pins are available in .062" and .093" diameter versions from stock. Other sizes can be made on request.

Tooling for rectangular panels



To singulate straight edge panels, the routed section is placed over the guide blade and the panel is brought forward to mill the tab from the panel. Guide blades for .062" and .093" routed channels are in stock. Other sizes can be made on request.

The T square edge guide can be quickly set to different positions by loosening and tightening set knob.