GETECH
"Performance, Value, Integrity"

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OVER 25 YEARS IN THE INDUSTRY

GBR BOTTOM ROUTER MACHINE

TOTAL SOLUTION FOR ROUTER BUSINESS

As a world leader in PCB Depaneling systems, **GETECH** presents **GBR**. An in-line fixtureless machine designed for routing of Large PCB panels (600mm x 400mm).

FEATURES

- FIXTURE-LESS ROUTER
- HIGH ACCURACY & QUALITY CUT
- IN-LINE AUTOMATION READY
- HIGH-SPEED ROUTING & THROUGHPUT
- AUTOMATIC CONVEYOR WIDTH ADJUSTMENT
- AUTOMATIC TOOL CHANGE AND TOOL MEASUREMENT
- AUTOMATIC PCB GRIPPER CHANGE
- HIGH RELIABILITY PCB GRIPPING SYSTEM
- HIGH-RESOLUTION CAMERA
- POWERFUL DUAL VACUUM SYSTEM
- CE CERTIFICATION

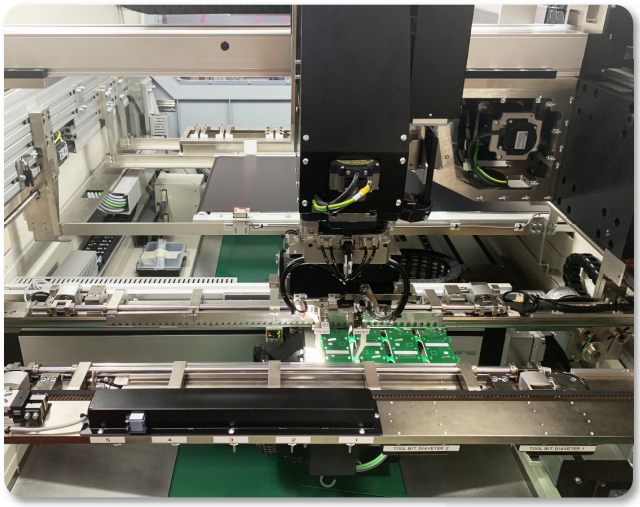
GUARDIAN INDEPENDENT CERTIFICATION GiC

UKAS MANAGEMENT SYSTEMS 045

ISO 9001 : 2015 Cert. No.: 622220

G B R Getech Bottom Router

Local Agent:



The GBR machine is an in-line automated bottom routing system that does not require the addition of PCB-specific fixture systems. It is specially designed to route (depanelize) large panels with PCB size up to 600mm x 400mm into individual units.

The PCB panels enter the machine through a conveyor. After barcode verification, the conveyor, gripper axis, and bottom spindle router work together to route boards with high stiffness and accuracy. The routed PCBs are subsequently transported via gripper to a wide variety of PCB handling solutions, such as flat belt conveyor, bridge axis, pallet/tray conveyor, dust cleaner, board flipper, and other solutions.

Using a high-resolution CCD camera and user-friendly Windows-based software allows users to program the routing paths in minutes. There are also no limitations in the number of programs stored. GBR uses high-quality components and a welded steel structure to ensure rigidity and high performance. All the axes and linear guides used are protected from dust and dirt to increase lifespan and performance.

SPECIFICATIONS

Routing Capability	Non-Routing Speed	: 1000 mm/sec
	Routing Speed	: 100 mm/sec max (depending on material, cutting quality & tool diameter)
	Repeatability	: ±0.05 mm straight lines, curves, and interpolated profiles
Manipulators	Configuration	: 9 axis
	Manipulator Motors	: AC brushless servo motors
	Manipulator Repeatability	: ±0.02 mm
	Resolution	: ±0.01 mm
Workstation	Design	: Fixtureless - Bottom Routing, In-line
	Panel Positioning	: Conveyor rail clamping (Top and Side) and Board gripping
	Panel Size	: L600 mm x W400 mm (Min. width = 70 mm)
	Panel Thickness	: 0.8 mm – 8.0 mm
	PCB Max. weight	: 4.0 Kg
	Component Height	: Top Max. 70 mm : Bottom components within 25mm radius of routing, Max. 12 mm Outside of 25mm radius of routing, Max. 30 mm
Spindle System	Spindle Motor	: 0.5 kW spindle with ESD / Ceramic bearings
	Tool Change	: Automatic tool change
	Cooling	: Ambient cooled
	Router bit	: Shank size 3.175 mm (1/8")
Gripper System	PCB Pick & Place	: Servo Gripper
	Gripper Finger Change	: Automatic
	Gripper Station Capacity	: Maximum of 8 sets of fingers depending on size
Dust Filtration System	Power	: 2 x 2.55 kW rotary vane vacuum blower
	Filtration	: 3 stage filtrations with disposable filter bag (10 microns)
	Vacuum Location	: Bottom vacuum on spindle
	Extraction Hose (x2)	: ID 51 mm (2”), L= 4M
	Noise Level	: <78 dB
Vision System	Video camera	: High resolution CCD video camera : Fiducial mark verification/confirmation, Bad mark recognition
Programming	System Platform	: Windows ® based Industrial PC (Win 10)
	Product Setup	: Vision assisted point to point manual teaching; Vision assisted editing function; Test-run
	Variable Functions	: Barcode support (1D or 2D), Autoloading of last product. Other options are available.
Operation Monitor	Router Bit	: Tool life tracking, Tool breakage detection, Routed board count, Tool diameter check
	Vacuum	: Vacuum filter change alarm
	Machine	: Machine error history
Conveyor System	Incoming Conveyor (Lane 1)	: Belt type edge conveyor (Left to Right)
	Conveyor Width Adjustment	: Automatic (Front rail – Fixed, Back rail – Auto adjust)
	Conveyor Height	: 940mm to 965mm (37” ~ 38”)
	Outgoing Conveyor (Lane 2)	: Flat Belt - exposed length of 640mm (default, options available)
	Lane 2 Options	: Bridge axis, Customized pallet/tray conveyor, PCB dust cleaning, PCB flipping, Reject tray/conveyor, and other options according to customer demand
	Communication	: SMEMA
Safety Features	E-stops, Spindle stop, Spindle motor overheat & Servo overload detection, Enclosed work area with safety doors	
Dimensions & Utilities	Machine Size (W x D x H)	: 1250 mm x 1940 mm x 1830 mm
	Vacuum Tank Size (Ø x H)	: 2 x 400 mm x 800 mm
	Weight (Main + 2 Tanks)	: Approx. 1400 kg + 60 kg
	Power Supply	: 3+N+E, 380~415V, 50 Hz or 3+E, 208~240V, 60 Hz; 10kW
	Air Supply	: 6 bars, consumption 50 Nl/min

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