

## GSR1200 Semi Auto Router Machine

The GSR1200 dual table router is a stand alone router machine specially designed to route (de-panelize) printed circuit board assemblies (PCBA) into individual assemblies. It is capable of speeds of up to 100mm/s and positioning speeds of 1000mm/s. It allows continuous routing with no stoppages during panel loading and unloading. The superior quality axis system allows the system to have high acceleration/deceleration, reducing cycle time (increase in production output) and at the same time maintaining high accuracy.

Using a high resolution CCD camera, GSR user-friendly Windows-based software allows the user to program the routing paths in minutes. There are also no limitations in the number of programs stored.

GSR uses high quality components to ensure rigidity and high performance. The ball screw axis are protected to keep out any dust or dirt. This will increase the life and performance of the axis.



### FEATURES

- Large range of panel size up to 350 mm x 350 mm (13.5" x 13.5")
- Powerful servo motors powered axis
- CE Certification (Option)
- Dual Vacuum Blowers
- Rigid fixturing and easy replacement
- Universal and dedicated fixtures available



## SPECIFICATIONS :

### Manipulator

Configuration	: X, Y, W & Z axis
Manipulator Motors	: 4 axis AC brush less servo motors
Manipulator Repeatability	: $\pm 0.02$ mm
Resolution	: $\pm 0.01$ mm

### Workstation

Board Positioning	: Dual workstation with nest fixture or pin fixture
Panel Location	: Located by tooling holes or edges of PCB
Loading/Unloading	: Manual Loading / Unloading
Panel Size	: 350 mm x 350 mm (13.5" x 13.5")
Panel Thickness	: 0.4 mm – 8.0 mm

### Spindle System

Spindle motor	: 0.15 kW or 0.5kW spindle with ESD Ceramic bearings
Max. Speed	: 60,000 rpm
Tool Change	: Manual tool change
Cooling	: Ambient cooled
Router bit	: Shank size 3.175 mm (1/8")

### Dust filtration system

Power	: 2 x 3.0 kW rotary vane vacuum blower
Filtration	: 3 stage filtration with disposable filter bag (10 microns)

### Operating system:

Spindle Speed	: 5,000 to 60,000 rpm adjustable via frequency converter
Non-Routing Speed	: 1000 mm/sec
Routing Speed	: 100 mm/sec max (depending on material, cutting quality & tool diameter)
Repeatability	: <0.1 mm straight lines, curves and interpolated profiles

### Maintenance

Spindle Bearing	: ESD Ceramic bearings
Router Bit	: 100 to 300 M cutting distance before next tool change (depending on PCB)
Filter Bag	: 1000 to 1500 M before next filter bag change
Safety Features	: E Stops, Spindle stop, Spindle motor overheat & Servo overload detection
Noise Level	: <78 dB

### Programming

System Platform	: Windows® based Industrial PC
On line	: Vision assisted point to point manual teaching
Editing Function	: Dry run vision assisted / test run mode
Variable Functions	: Tool bit diameter compensation, Filter change interval (distance) setting. Tool bit wear compensation. Other options available.
Options	: Bar code support (1D or 2D), Fiducial alignment

### Vision system

Video camera	: High resolution CCD video camera
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### Operation Monitor

Router Bit	: Tool life tracking, PCB board count, tool broken sensor
Vacuum	: Vacuum filter change alarm
Machine	: Machine error history

### Machine dimensions & utilities

Machine Size	: 1.30 M x 1.30M x 1.70M
Weight	: 650kg
Power Supply	: 208 V, 60Hz 415 V, 50 Hz