



# fancort industries, inc. <sup>TM</sup>

FR-1000 Stand Alone PCB Router

## Overview

Introducing Fancort's FR-1000 stand alone collaborative ready PCB router machine, specially designed as a low cost solution to meet medium volume PCB depaneling requirements with a machine that provides the mechanical properties necessary for reliable accurate depaneling.

The FR-1000 is capable of depaneling boards up to 457mm x 355mm and up to 3mm thick, single working area machine with top vac dust removal system, and 350 watt high speed spindle.

## Features

- ▶ Large panel size: 457mm x 355mm.
- ▶ Powerful gantry system.
- ▶ Easy vision jog and teach programming.
- ▶ Small overall footprint.
- ▶ Vac filtering for ultra clean operation.
- ▶ Fiducial mark vision alignment.
- ▶ Manufactured in the USA/NJ by Fancort Industries, backed with one year warranty.
- ▶ Quick release for fast bit changeover.
- ▶ Fixture comes standard equipped as a universal fixture but can also easily accept dedicated tooling for fast change over for mixed environments.



## Specifications

### - Manipulator

Configuration: X, Y, & Z axis.

Manipulator Motors: 3 axis stepper motors.

Manipulator Repeatability:  $\pm 0.02$ mm.

### - Routing Capability

Non routing speed: 800mm/s.

Routing speed: up to 25mm/s max depending on material, cutting quality and tool diameter.

Repeatability:  $\leq \pm 0.02$ mm straight lines, curves & interpolated profiles.

### - Workstation

Panel Location: Adjustable fixture with ability to add dedicated fixture plates.

Loading: Manual or Collaborative Robot Loading.

Panel Size: 457mm x 355mm (18.0" x 14.0").

Panel Thickness: 0.5mm - 3.0mm.



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## - Spindle System

Spindle Motor: 350 Watt High Power Spindle.  
Max Speed: 60,000 rpm.  
Tool Change: Manual tool change.  
Cooling: Ambient cooled.  
Router Bit: Shank size 3.175mm (1/8").

## - Dust Filtration System

Power: 1.0 kw vacuum blower with HEPA filter.  
Filtration: 3 stage filtration with disposable filter bag (10 microns).  
Vacuum Location: Top vacuum on spindle.

## - Vision System

High resolution CCD video teaching camera.  
Fiducial correction.  
High quality touch screen monitor GUI standard.

## - Programming

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.  
Gerber File Import with PC software for offline programming.

## - Safety Features

Automatic door with interlock and embedded light curtain. Full steel interlocked enclosure for noise, dust, and operator safety.

## - Machine Dimensions & Utilities

Machine size: 1.00M x 1.00M x 1.8M.  
Weight: 300 kg.  
Power Supply: 120/1/60 V for machine and separate Vacuum.

## OPTIONS:

Dedicated Fixture Plates.  
High Power Vacuum.  
Gerber File Import.  
Cobot Mounting Station.

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