



Cencorp TR5300



Cencorp TR5000 Platform

The modular Cencorp TR5000 series in-line depaneling systems are designed to meet the requirements of high-volume manufacturing environments. The Cencorp TR5000 series accommodates a wide range of depaneling processes including tab reduction, routing in pallets, full board routing, and output to flat belt or downstream automation or packaging systems.

This platform incorporates a heavy duty, precision-ground machine base and fully enclosed canopy. The rugged 3-axis router gantry, controlled via a PC-based servo system, provides the accuracy needed for tight tolerance processing. The input conveyor includes a mechanical panel stop, pin registration, and easily adjustable conveyor width. The integrated vacuum pump and external dust collection and filtration canister provide dust control for the most sensitive applications. The Cencorp TR5000 control software and easy-to-use graphical user interface run on an industrial PC with the Windows® XP operating system.

Cencorp TR5300

Products are secured during the routing process with a product specific top-side gripper assembly mounted on a quick change interface. After routing, the depaneled pcbs are placed on a flat-belt or optional edge-belt output conveyor. Scrap is dropped automatically to a waste collection drawer. This system fits into the commonly used process flow in which post-depaneling operations are manual or batch mode.



Technical Data

Machine Dimensions

Width: 1473 mm (58")
 Depth: 1220 mm (48")
 Height: 1650 mm (65")
 Approximate Weight: 908 kilos (2000 lbs.)

Gantry

Gantry motors: 3-4 axis AC brushless servo motors
 Servo repeatability: ± 0.0127 mm (0.0005")
 Servo: X, Y
 Pneumatic: Z (servo optional)

Transfer Gantry

Servo: X
 Pneumatic: Z

Board Handling

Min panel size: 51 x 51 mm (2" x 2")
 Max panel size: 305 x 305 mm (12" x 12")
special configuration: (394 x 267 mm) 15.5" x 10.5"
 Panel thickness: Up to 3.17 mm (0.125")
 Max component height
 Top (tooling) side: 51 mm (2")
 Bottom (router) side: 9.5 mm (0.375")
 SMEMA: height / communication
 Product flow: left-to-right, right-to-left

Utilities

Voltage: 208-220, 3-phase, 60 Hz, 25 Amps
 380-400, 3-phase, 50 Hz, 20 Amps
or to customer specifications
 Pressure: 5.5 bar (80 PSI) clean, dry air
 Flow: 198 l/min (7 SCFM)

Vacuum System

Power: 3.7 kW (5 hp) rotary vane blower
 Filtration: 3 stage disposable industrial vacuum filter bag, 0.3 micron (HEPA)

Spindle Motor

Size: 45 mm
 Power: 500 watts
 Max speed: Variable up to 50,000 RPM
 Cooling: Air cooled
 Router bit: Shank size 3.175 mm (1/8")
 Tool change: Manual / Automatic option
 Rout speed: Up to 75 mm (3")/sec
 Slew speed: Up to 863 mm (34")/sec

Control

Cencorp TR5300 control software
 Industrial computer, specifications:
 Windows® XP USB Port
 Pentium Processor 1 Network Port
 1 Parallel Port CD-ROM Drive
 2 Serial Ports 3.5 Floppy (1.44 MB)
 15" SVGA color monitor

Programming

Camera-Assisted Teaching System (CATS):
 Program Teach Mode:
 Coordinates are taught by physically moving the motors to the specific coordinates, "teaching" the machine the positions.
 Program Test Mode:
 Manually or automatically step through program to verify the program before running production.

Software Features

Video-Aided Programming
 Event Log
 Diagnostic Tools
 Tool Life Tracking
 Broken Bit Detection
 Vacuum Bag Life Tracking
 Multi-Level Password Protection

Options

Flat Panel Monitor / Touch Screen GUI
 Automatic Bit Replacement
 Bar Code Interface Software
 Fiber Optic Board Verification
 Active Vision
 Servo Z
 Universal Pickup Hand
 Panel Support
 CE Certification
 Anti-Static Lexan

Specifications subject to periodic review and change without notice

