

Cencorp 1300 BR

Depaneling

Cencorp 1300 BR provides best flexibility and efficiency in the PCB separating process

Cencorp's first depaneling product was a manually fed shearing machine that was introduced in the early 1980's. Now with more than 40 years' experience in manufacturing depaneling equipment, with pride we introduce a versatile and powerful in-line depaneling cell, the Cencorp 1300 bottom router. Cencorp 1300 BR has extremely high accuracy and speed to cut PCB panels. It utilizes the most advanced linear motor technology for the PCB separating process; thus, providing high speed and high accuracy, but keeping the maintenance costs low.



Low cost of the product exchange

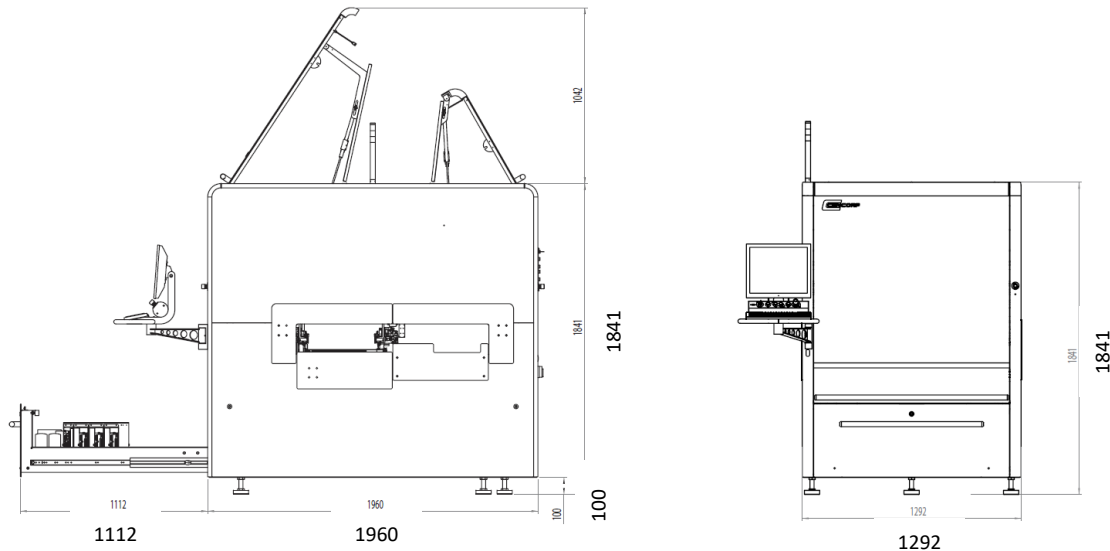
The fully automated Cencorp 1300 BR is designed for high volume mass-production. The fast product change over increases flexibility while guaranteeing a high through-put and, thus, minimizing production loss. Moreover, we recognize a growing need for ESD protection and a clean cutting process (less dust), which have been very carefully incorporated to our depaneling solutions. Also, the known Cencorp user- and service-friendliness has been taken into account when designing the 1300 BR, allowing easy access inside to cell on both sides front and rear. The Cencorp depaneling machines are equipped with software interface that will allocate required information pertaining to daily production. In addition, we have very useful software options available like, PCB quality verification, live Cpk monitoring, bit height and diameter verification, CAD file download, off-line programming and others, which also increase productivity.

Modular platform

Our standard solution is based on modular product construction, which includes a wide variety of PCB handling solutions needed after the depaneling process, such as, tray conveyors, flat belt conveyors, PCB shuttle and palette conveyors.

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Technical Data



Pick & Place Work Envelope

X-travel: 850 mm
Y-travel: 1275 mm
Z-travel: 160 mm
W-travel: 360 deg

Router Work Envelope

X-travel: 480 mm
Y-travel: 490 mm
Z-travel: 50 mm

Accuracy

Repeatability (X,Y): ± 0.02 mm
Repeatability (W): $\pm 0.05^\circ$

Board Handling (panel)

Min. PCB size L x W: 75x75 mm
Max. PCB size L x W: 500 x 400 mm

- Oversized PCB dimensions can be handled upon request

PCB transfer time: 1s (depending on run mode)

Transfer protocol: SMEMA (standard) or Hermes (option)

Transfer height: 900 \pm 25 mm

2nd locating pin: Programmable

Automatic conveyor width adjustment**: Programmable

PCB conveyor type: Two segments

Max. PCB board weight: 4.0kg

Top clearance: 100 mm

Bottom clearance: 40 mm

PCB stopper position: programmable / fixed (option)

Pick & Place Performance

Max. axis speed: 2500mm/s

Max. acceleration: X-axis 20000mm/s²,

Y-axis 12000mm/s², Z-axis 25000mm/s²

Recommend routing speed: 20-40mm/sec

Basic features

Product teaching (CATS): Camera-Assisted Teaching System
Broken bit detection
Routing bit storage: 10 pieces
Routing bit and vacuum bag life monitoring

Gripper System

PCB pick & place: servo gripper
Gripper finger width: programmable 0-100mm
Gripper finger change: Automatic
Gripper type identification
Tool rack for product specific fingers: 8 positions

Multi gripper: Optional

Graphical User Interface

Operating system: Windows 10
USB memory: Standard
Touch screen: Standard
Network connection: Optional
Dual Monitors: Optional

Machine Vision

Correction of PCB position: Optional
Downward looking camera: Optional
2D-code reading: Optional
Routing verification: Optional

External Vacuum System

Nilfisk: Optional
Ruovac: Optional
Others: Optional

Electrical Service Requirements

Voltage EU (USA): 400 (208) VAC 10%
Frequency EU (USA): 50 (60) Hz
Branch circuit size: 16 A
Average power cons.: 2 kW / phase

Software Options

CMS (cell monitoring system): Optional
Automatic Program Change Over: Optional
Finger validation system: Optional
Good/bad board separation: Optional
Router bit high verification: Optional
Router bit diameter verification: Optional
Offline Editor: Optional

Machine Dimensions

Width: 1300mm
Depth: 1900mm
Height: 1850mm
Weight: 2600kg

Pneumatics Service Requirements

Pressure: 5-7 bar
 $\pm 10\%$, dry clean air
Approx. air consumption: 100 l/min

Environmental requirements

Operating temperature: 10 ... 40°C
Operating humidity (RH): 30% ... 85%

Output conveyor and other solutions

Flat belt conveyor: 1500mm x 250mm
Tray conveyor: Tray width up to 400mm
Tray feeder: Tray size up to 600x400mm
Shuttle: Maximum product width 400mm
Other output systems: Upon request

Other

Centering unit on rear conveyor rail: Optional
Ionizer: Optional
Waste conveyor: Optional

** Patented: US6222629, FI105315, Pending EP