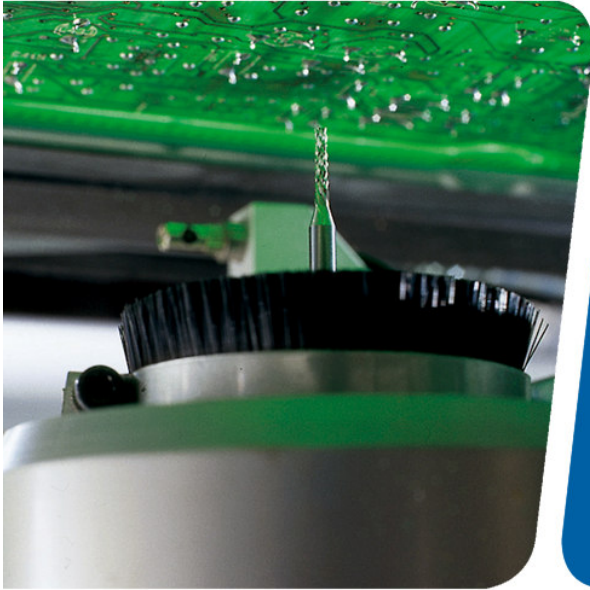


## Cencorp 1000 BR



### The best choice for PCB

The PCB depaneling phase should never be a bottleneck in your production, not in terms of quality, cycle time, change-over time or maintenance. Then the right choice is the Cencorp 1000 Bottom Router (BR), chosen by world-class manufacturers to improve their production throughput. Over 15 years of experience in depaneling has been built into this 4th generation solution.

#### **Cencorp 1000 BR provides flexibility and efficiency**

The system is extremely easy to program and operate thanks to its graphical user interface with integrated teach mode. Automated tasks such as automatic rail adjust and automatic program

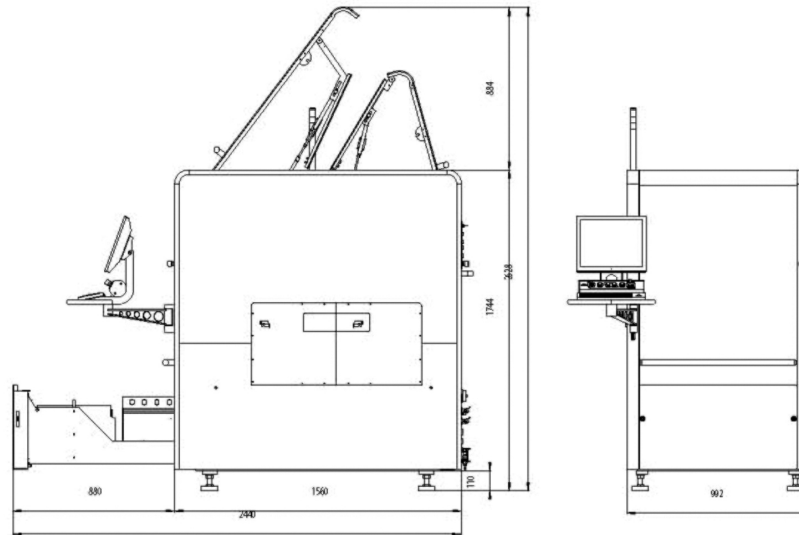
change as well as the servo gripper mechanism eliminate the need for any manual intervention or the need to use special tools in product change-over.

The Cencorp 1000 BR is both efficient and flexible; the same machine can also be used as a stand-alone router. Due to the high capacity and short change-over time, you can replace several stand-alone machines with one Cencorp 1000 BR.

#### **One single platform**

Our standard solutions are based on one platform and module strategy. However, customer specific modules can be built when required to meet the manufacturing process requirements.

# Technical data 1000 BR



### Pick & Place Work Envelope

X-travel: 645 mm  
Y-travel: 940 mm  
Z-travel: 150 mm  
W-travel: 360 deg

### Router Work Envelope

X-travel: 450 mm  
Y-travel: 415 mm  
Z-travel: 50 mm

### Accuracy

Repeatability (x,y,z):  $\pm 0.03$  mm [3 s]  
Repeatability (W):  $\pm 0.05^\circ$  [3 s]

### Pick & Place Performance

Max. axis speed: 2000 mm/s  
Max. acceleration: 15000 mm/s<sup>2</sup>  
Rec. routing speed: 20–50 mm/sec  
Machine cycle time, min\*: 4 sec

### Board Handling (panel)

Min PCB size: 50x50 mm  
Max PCB size: 450x350 mm  
Thickness, max: 5mm  
Transfer protocol: SMEMA  
Optional: WMV  
Transfer height: 900+-25mm  
PCB conveyor type: Two segment  
Top clearance: 70 mm  
Bottom clearance: 20mm  
Conveyor speed up to: 16m/min adjustable  
Width adjustment\*\*: Programmable  
Locking pins adj.: Programmable  
PCB stopper pos.: Programmable

### Base Standards

Teach In (CATS): Camera assist  
Broken bit detection: Optical  
Routing bit storage: 10+10 pcs  
Dust extraction support: Air ionisation

### Gripper System

PCB pick & place: Servo gripper  
Gripper finger width: Programmable  
Gripper finger change: Automatic  
Gripping identification: Standard  
Tool rack f. gripper finger: 3–4 positions  
Pneum. multiple gripper: Optional

### External Vacuum System

ULT 200 Ec: Optional  
DustAway: Optional  
Others: Optional  
Dust Flow Control: Optional

### Graphical User Interface

Operating system: Windows XP  
USB memory: Standard  
Touch screen: Optional  
Ethernet card: Standard  
Dual Monitors: Optional

### Machine Vision

CATS: Standard  
Active vision, Matrox: Optional  
Fiducial reg.time: < 1 s

### Software Options

CMS: Local SPC  
APCC: Auto Prg. Change  
Barcode support: 1D or 2D

### Machine Dimensions

Width: 992 mm  
Depth: 1560 mm  
Height: 1744 mm  
Weight: 1700 kg

### 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 kVA

### 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%

\* Machine cycle time is related to PCB layout  
\*\* Patented: US6222629,FI105315,Pending EP