

AUO Series Offline Depaneling System

AUO 3000 (330*350mm, twin table) AUO 4000 (450*520mm, twin table)

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Machine Appearance



Feature Introduction





Specification

AUO 3000	AUO 4000				
2					
X:330mm, Y:350mm,	X: 450mm, Y: 520mm,				
Top side : 15mm Bottom side : 45mm					
0.5 to 3.0 mm					
± 0.08 mm					
± 10 μm					
± 20 μm					
X, YL, YR : 1200mm/sec, Z: 750mm/sec (MAX)					
X, Y, Z: 100mm/sec (MAX)					
Standard: 4026, 265W, (Max.) 58,000 rpm, Torque: 4.5 Ncm Optional 1: 4025DC-T, 470W, (Max.) 30,000 rpm, Torque: 15 Ncm Optional 2: AP 008-FSD, 500W, (Max.) 80,000 rpm, Torque: 8.4 Ncm)					
Linear, Circular, U-curve, Arc, L-curve					
Direct coordinate input or manual guiding with × 10 CCD camera					
Windows 7					
Panasonic A6 400W					
ЗНР	5HP				
1565*1110*1462mm Signal Light 561 mm	1789*1400*1435mm Signal Light 561 mm				
	AUO 3000 2 X:330mm, Y:350mm, Top side : 15mm Bottom side : 45π 0.5 to 3.0 mm ± 0.08 mm ± 10 μm ± 20 μm X, YL, YR : 1200mm/sec, Z: 750mm/s X, Y, Z: 100mm/sec (MAX) Standard: 4026, 265W, (Max.) 58,000 Optional 1: 4025DC-T, 470W, (Max.) Standard: 4026, 265W, (Max.) 58,000 Optional 1: 4025DC-T, 470W, (Max.) Optional 2: AP 008-ESD, 500W, (Max Linear, Circular, U-curve, Arc, L-curve Direct coordinate input or manual gr Windows 7 Panasonic A6 400W 3HP 1565*1110*1462mm Signal Light 561 mm				

Advantageous Genes



Equipment Overview



LED lights

CCD camera & LED

CCD assists the coordinate setting for routing path making.

<u>Ionizer</u>

Ionizer reduces electrostatic discharge effectively.

Bit break/ slide check sensor

A Sensor detects bit break or slide after each routing.



Equipment Overview

SycoTec 4026 Spindle







Speed range: 5,000~60,000 rpm Torque: 4.5 Ncm Frequency: 83~1,000 Hz Power: 265W



Routing Bit





Specific Fixture







Specific Jig

In offline router, in order to have more stable and accurate routing environment, Aurotek will suggest making specific fixture instead of building by universal jig



Dust Collector



High horse power motor (3 or 5HP) & high efficiency fan ensure the suction with excellent efficiency for the dust collector

Туре	YSF-V605				
Dimensions (WxDxH)	780x665x1900mm				
Weight	230 kg				
Dower Sweek	3 phase 50Hz / 60Hz 220V				
Power Supply	3.7 kw				
Motor Power	5 HP				
Inlet Wind Speed	28m/sec				
Inlet Wind Capacity	40 m³/min				
Inlet Wind Pressure	300 mm-Ag				
Inlet Diameter	150mm				
Outlet Diameter	203mm				



Dual Working table with Safety Area Sensor



Dual Working Stations

Dual table will achieve non stop working. to minimize the idle period



Safety Area Sensor

Each offline router equips with area sensor in standby area. It prevents any accident during machine running



Features- Bit Sectioning

Routing Bit Sectioning

User sets up nominated distance for each bit section, and set the number of bit lifting according to the PCB thickness. Once it reaches nominated distance, will automatically lift bit and use fresh bit section to work, until reaching the nominated distance.





Features- Bit Break & Bit Slip



Bit Slip Detection Sensor

It's standard for all series of Aurotek Depaneling systems to equip the bit drop sensor, to monitor and assure the in the correct position.



Features- Small Dust Orifice





Small Dust Orifice

Vacuum suction area is narrow and under X axis. It will have better performance for dust collecting.

Equipping h ionizer to remove ESD during bit cutting.

It increases the dust collection efficiency significantly.





Features- User Interface & CCD Simulation



*Friendly User Interface

Window 7 OS and friendly user interface is easy for user learning and operating



***CCD Image Pathway Simulation**

User could use CCD image to check & simulate the path of routing. With 10 times zoom-in image it makes program editing.



Features- Fiducial Mark Alignment



PCB panel A: Main Fiducial Mark B: Local Fiducail Mark

Multiple Fiducial Mark Alignment

Fiducial marks are automatically checked before each routing.

If misalignment is detected within tolerance, the routing path will be translated according to the fiducial position shift.

If misalignment is over tolerance, cutting process will be stopped immediately with error message and alarm.



Features- Routing Path Copy



Routing Path Copy

By aligning the local fiducial marks, the program enables cutting path translation to other identical PCBs. It saves lots time for routing path setup.



Features- Product information

s	S330W Twin Slide Separator Ver 1 0.6.0 (PRG 1 0.6.0)						
		Left Table	Pat	h Displa	ays	Right Table	
l	Product	aurotek3dxf	OPEN		Product	Test-R	OPEN
l	Quantity	30 pics	RESET		Quantity	4 pics	RESET
	Cycle Time	4.39 sec			Cycle Time	3.84 _{sec}	
l	Jump Cut	0		Ħ	Jump Cut	0	
	Status- Standby	Cut Wait Warn	Manual	Bits	Status Standby	Cut Wait Warn	Manual

Production Information

It show related information, as product name, made quantity and cycle time,



Bit & Spindle Information

It records the cutting distance for bit, and total operating hour for spindle.. When it reaches the nominated length, the program will go to use next section of bit, or notify for bit change.



Option- Dual Spindle System



<u>SycoTec Spindle 4026 * 2</u> 265W Max.58,000rpm (Torque Max.4.5Ncm)





Option- Aluminum Board Cutting

B. Aluminum Board Cutting

Sycotec 4025DC-T spindle would be used for aluminum board routing <u>Specs: 470W Max. 30,000rpm. Torque: 15Ncm</u> It is with higher power, lower rpm, and higher torque, to meet the character of Aluminum board







Option- Auto Bit Change

Automatic Bit Changer System

When the cutting blade reaches its limit, the system will replace with a new blade and resume production automatically. It dramatically reduces configuration time and maintenance related personnel costs.



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Option- Auto Bit Change

Spindles for Automatic Bit Changing

It will use SycoTec 4033 pneumatic spindle when auto bit change function is required.

Specs of SycoTec 4033 AC Spindle: 500W Max. 100,000rpm (Torque Max.8.4Ncm)





Syco Tec

Option- Product Traceability & MES

Production Traceability / MES Function with Barcode Reader

It would automatically record the data as manufacturing Date, Time, Serial Number, Product Name, Production Quantity, Production Cycle time & Operator ID. However it would need to equip barcode reader to enable the function

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	A	В	С	D	E	F	G	Н	Ι	J	K	L
1	Date	Time	L PCB Board serial Number	L Product Name	L Qty.	L Cycle Time(sec)	Opeartor ID Number	R PCB Board serial Number	R Product Name	R Qty.	R Cycle Time(sec)	Opeartor ID Number
2	2017/4/12	17:15:58	1	DEMOL1	29	18.13	9527	1	DEMOR1	1	9.98	9527
3	2017/4/12	17:16:17	1	DEMOL1	29	18.13	9453	1	DEMOR1	2	13.36	9453





Option- Offline Program Editing

Offline Program Editing

User uploads DXF drawing into offline routing editing program, and complete the program editing on personal PC. Then saves the program into USB then download the program to router.

It' s simple & efficient.

pCad 1.0.0 Product	Point	
Name C:\Documents and Settings\MyUser\集团\Off	Cmd	
DXF Name Aurotek_PCB_2D_110531.dxf Open	Start Point	/ én Vén Vén V
Mark Point /	Pass1	
Parameter	Paps2	
Quantity pics Shift Num	End Point	
Bit Dia mm Bit Life m		
bit Shint mm Cuit Speed minysec		
Position		
Z-Up mm Z-Down mm Standby)	(mm Standby Y mm	
No. Cmd Start Point Passi Point X Y X Y	Pass2 Point End Point X Y X Y	
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Other Options

Routing Bit Diameter Detection

Checking the bit diameter before each working. To ensure using the correct bit for routing

UPS Support System (for IPC 30 minutes)

To prevent the suddenly power failure in factory.

Spindle Speed Digital Adjustment

User could adjust spindle speed by operating software, To use different speed for different PCB material

USB Backup System

USB keeps all original data and parameter. User could backup router to original status if necessary



Global Customers







