

AUO 3000DT Desktop PCB Depaneling System

330*250mm single table

AUO 3000DT PCB Depaneling system



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Specification

•AUO 3000DT Specification

| | |
|---------------------------------------|--|
| Fixture Table | 1 Station |
| Standard Working Area (Max.) | 330 mm × 250 mm |
| Upside Panel Height (Max.) | 15 mm |
| Downside Panel Height (Max.) | (Universal Fixture) 25 mm / (Customized Fixture) 30 mm |
| PCB Thickness | 0.5 mm ~ 2.0 mm (Please advise Aurotek when the thickness is more than 2 mm) |
| Standard Router Bit Diameter | Ø 1.0, Ø 1.2, Ø 1.6, Ø 2.0 mm |
| Cutting Accuracy | ± 0.1 mm |
| Positioning Repeatability | ± 0.01 mm |
| Axes Control | 3 Axes (X, Y, Z) / AC Servo Motors |
| Moving Speed (Max.) | X, Y : 500 mm/sec, Z: 100 mm/sec |
| Cutting Speed (Max.) | X, Y, Z: 100 mm/sec |
| Spindle | Aurotek 4026 |
| Spindle Rotation (Max.) | 265W / 58,000 rpm (Air Chuck System) |
| Bit Change Detection | Manual |
| Bit Shift (Max.) | 3 Position (Conditional) |
| Bit Broken / Sliding Detection | YES |
| Cutting Mode | Linear, Circular, U-curve, Arc, L-curve |
| Static Eliminator | YES (Including a Set of Cleaning Detergent / per Unit) |
| Operating System | OS / Windows 7 |
| PC Dimensions (W x D x H) | (W)173 mm × (D) 401 mm × (H) 254 mm [Located next to the machine] |
| Man-Machine Interface | 15" Industrial LCD Monitor, Keyboard, Mouse [Located under to the machine / in a drawer] |

Specification

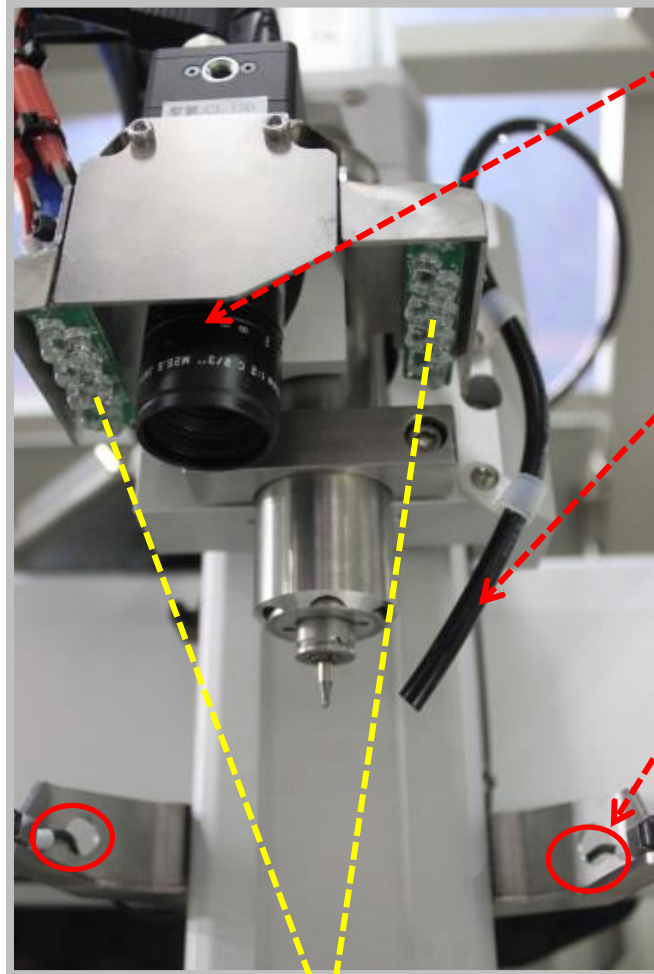
| | |
|--|---|
| Program Storage | HDD |
| Method to back up the program | USB |
| CCD Camera System | Setting Base |
| Route Planning | Set up paths guided by CCD camera manually. |
| Signal Light | YES |
| (Signal Light) Software Setting | Standard |
| Area Sensor | N/A |
| Barcode Reader (Automatic / Manual) | N/A |
| CE Certificate | N/A |
| Pneumatic Pressure | 0.5 Mpa |
| Power Supply | Single Phase, 200V/220V, 50Hz/60Hz [Including a standard plug and a piece of cable - 3M] |
| Machine Dimension | (W) 680 × (D) 815 × (H) 843 mm |
| Machine Weight | Approx. 140 KGS |
| Working Area Height (Max.) | (Working Desk) + (340 mm ± 20 mm) |

Specification

| ** Vaccum Cleaner | YSF - V553DT |
|--------------------------|--|
| Power Supply | 2.2 KW (3HP) |
| Air Volume | 263 / min |
| Static Pressure | 2.9 KPa |
| Decibel (db) | 75 dB ~ 80 dB |
| Power Supply | 3 Phase, 200V / 220V, 50Hz / 60Hz [Including a standard plug and a piece of cable - 3M] |
| Vacuum Cleaner Dimension | (W) 780 mm × (D) 780 mm × (H) 1,000 mm |
| Machine Weight | Approx. 170 KGS |



Equipment Overview



CCD camera & LED

CCD assists the coordinate setting for routing path making.

Ionizer

Ionizer reduces electrostatic discharge effectively.

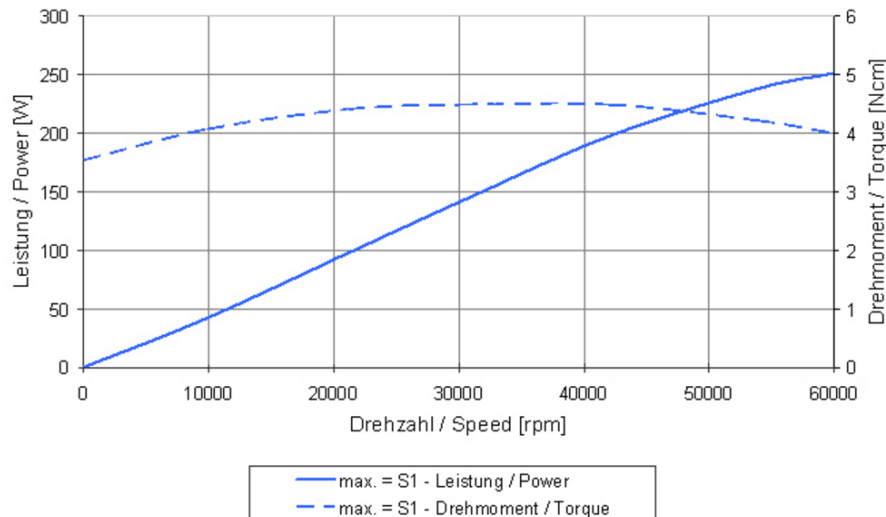
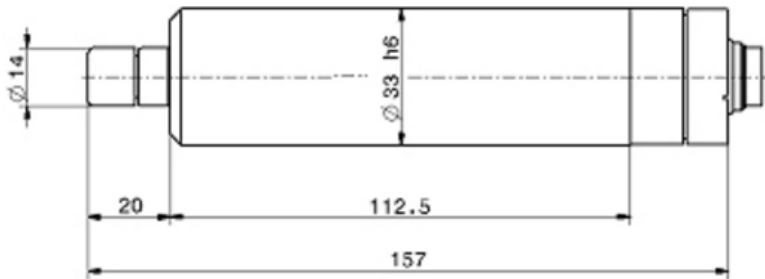
Bit break/ slide check sensor

A Sensor detects bit break or slide after each routing.

LED lights

Equipment Overview

SycoTec 4026 Spindle



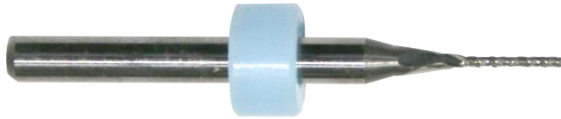
Speed range: 5,000~60,000 rpm

Torque: 4.5 Ncm

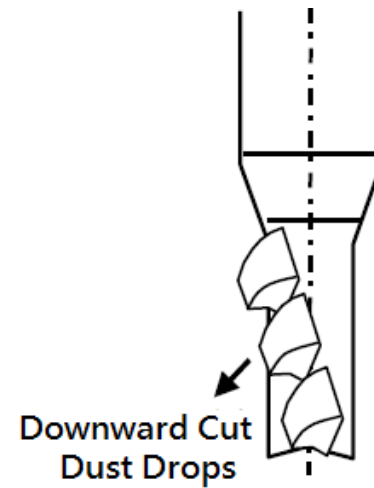
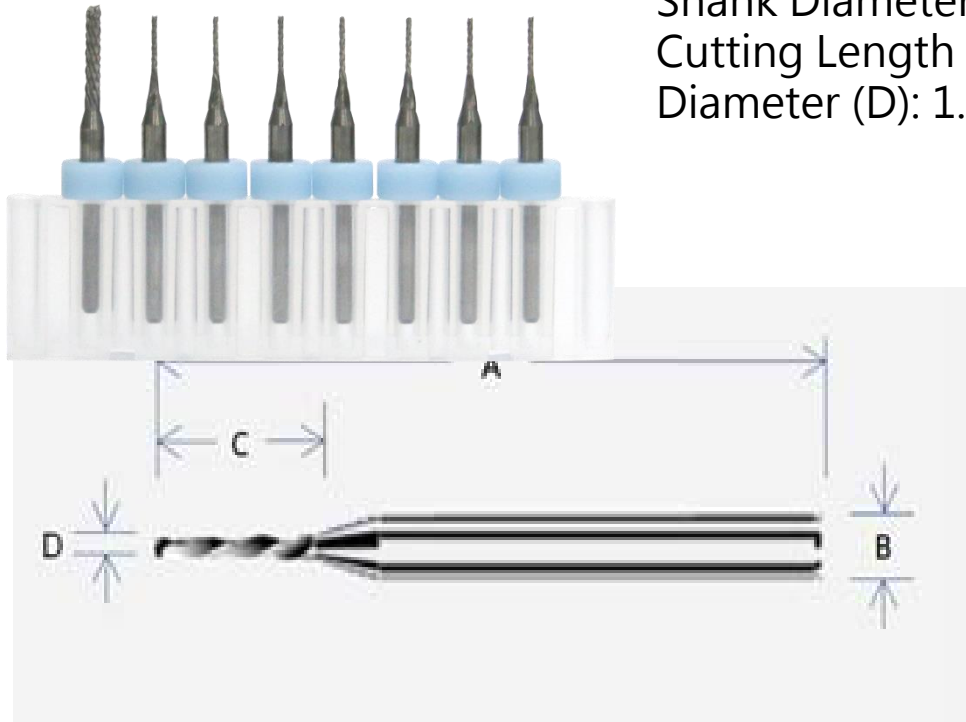
Frequency: 83~1,000 Hz

Power: 265W

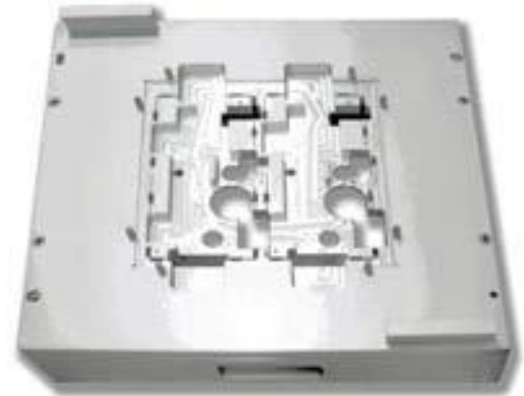
Routing Bit



LCF; Down Cut; Carbide end mills
Overall Length (A): 38.2 ± 0.30 mm
Shank Diameter (B): 3.175 mm
Cutting Length (C): 6 ± 0.50 mm
Diameter (D): 1.00 1.20 1.50 1.60 2.00 mm



Specific Fixture



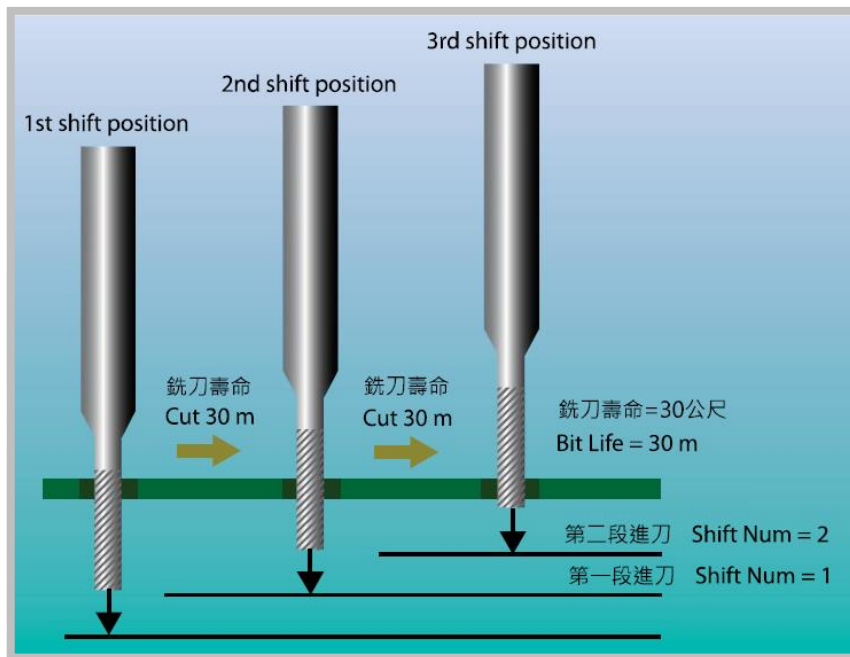
Specific Jig

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

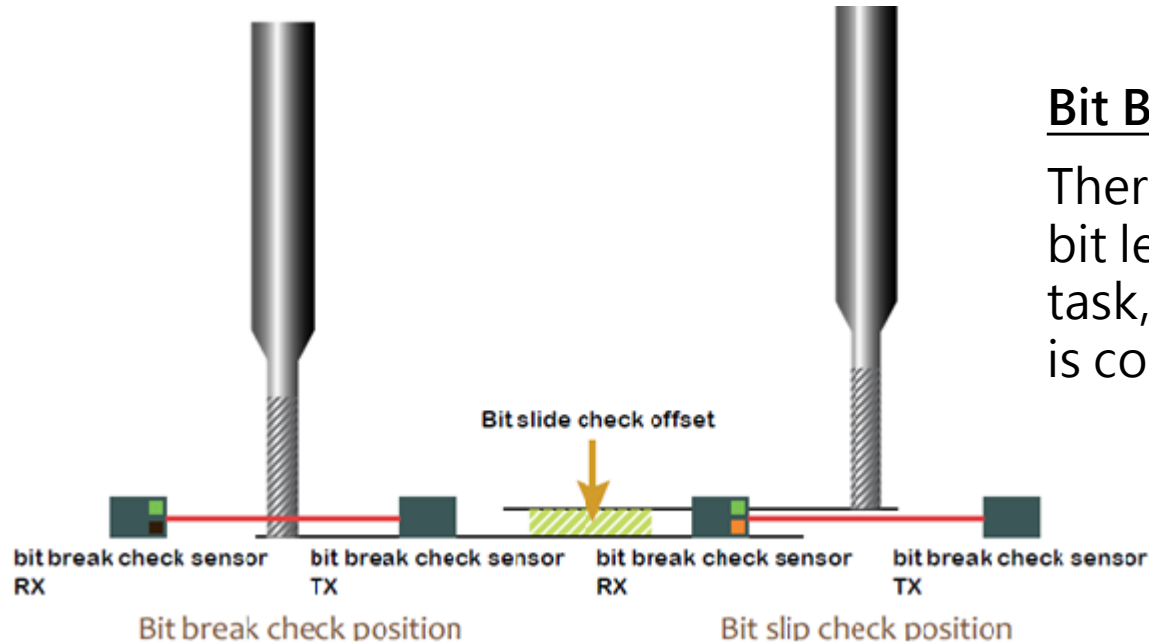
Features- Bit Sectioning

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



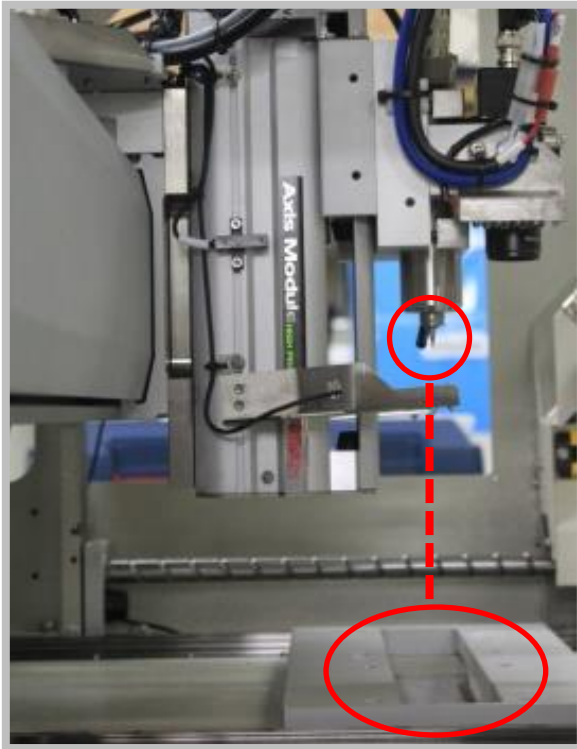
Bit Break Detection

There is a sensor to detect the bit length during each routing task, to make sure each working is correct and perfect.

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

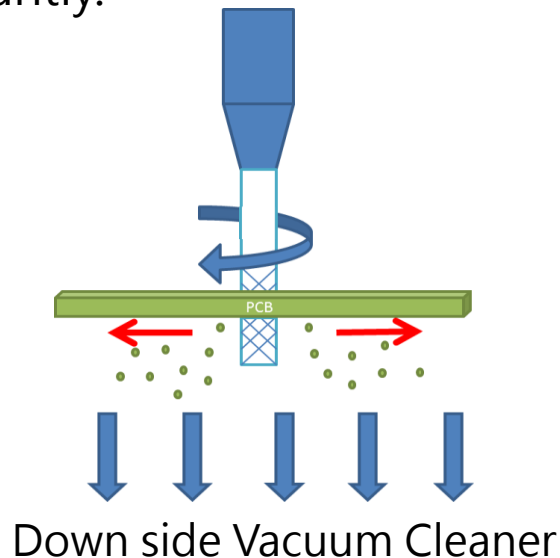


Small Dust Orifice

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

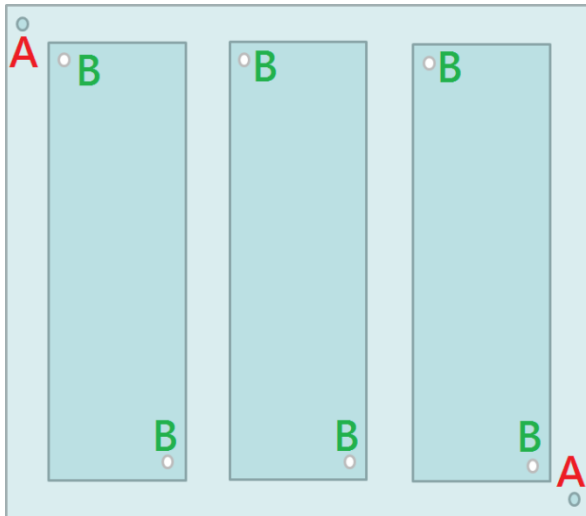
Window 7 OS and friendly user interface is easy for user learning and operating



*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 Fiducial Mark

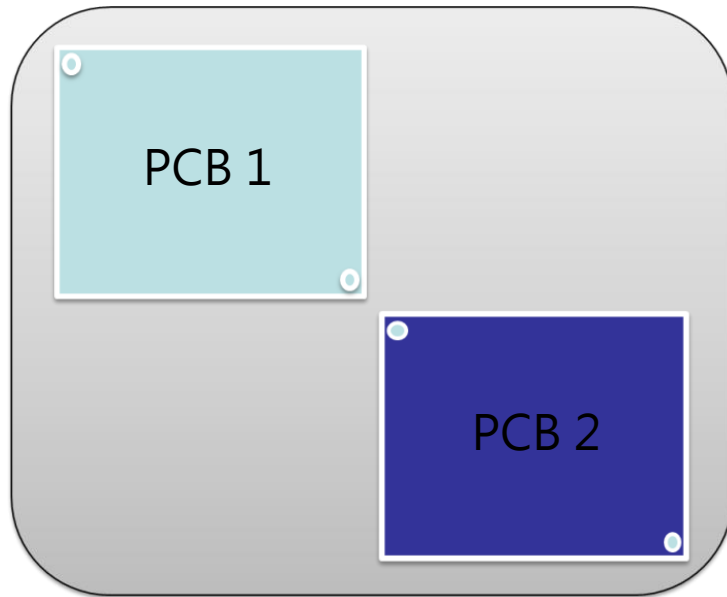
Multiple Fiducial Mark Alignment

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.

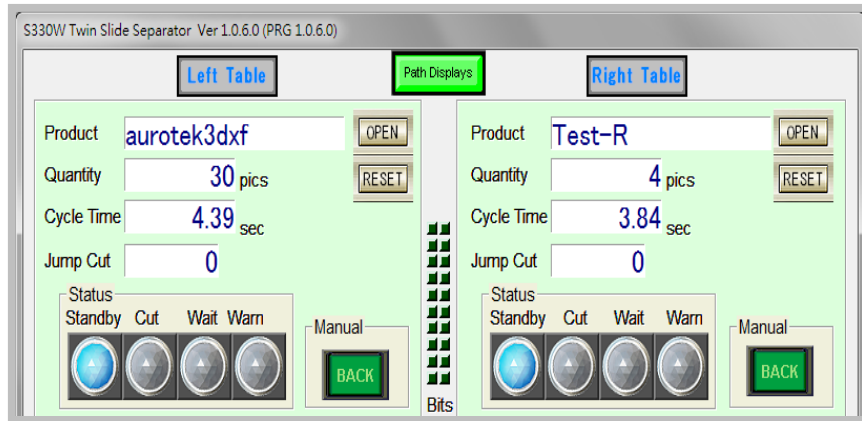
Features- Routing Path Copy



Routing Path Copy

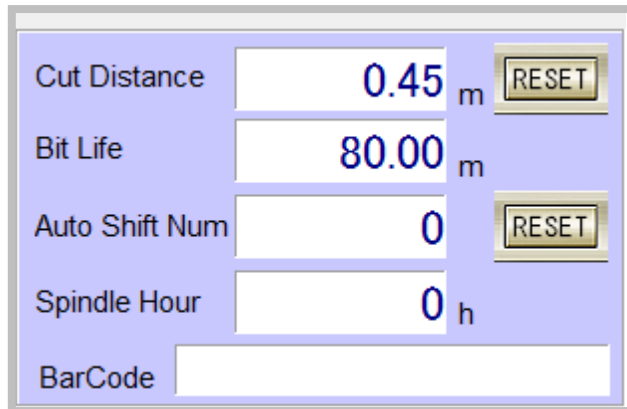
By aligning the local fiducial marks, the program enables cutting path translation to other identical PCBs. It saves lots time for routing path setup.

Features- Product information



Production Information

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



Bit & Spindle Information

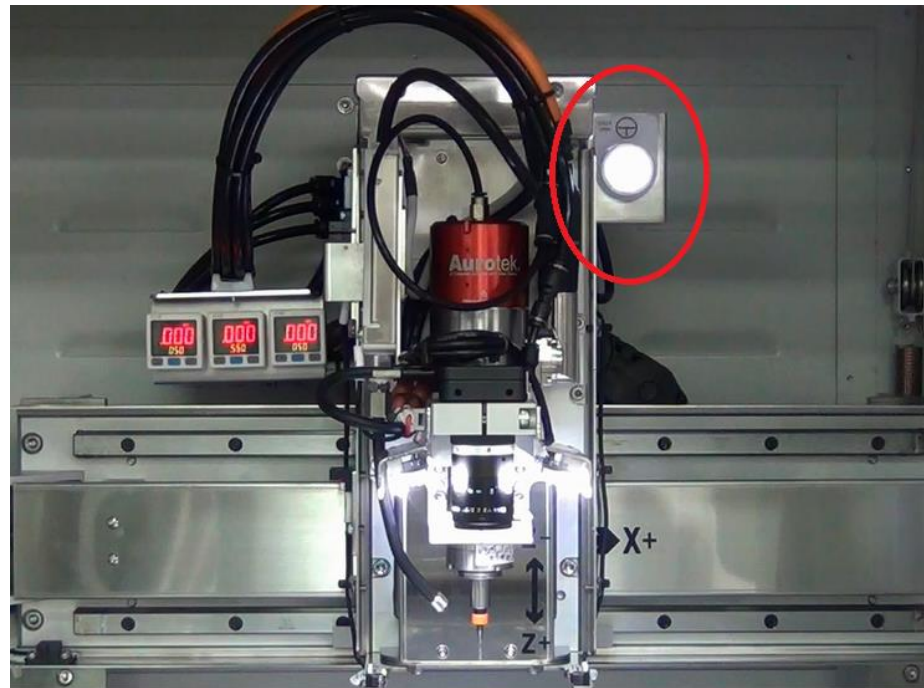
It records the cutting distance for bit, and total operating hour for spindle.. When it reaches the nominated length, the program will go to use next section of bit, or notify for bit change.

Option- SemiAuto Bit Change

Semi-Auto Bit Change

Semi-Auto bit change is an ideal option for AUO 3000DT desktop type router.

It saves time when bit needs to be changed



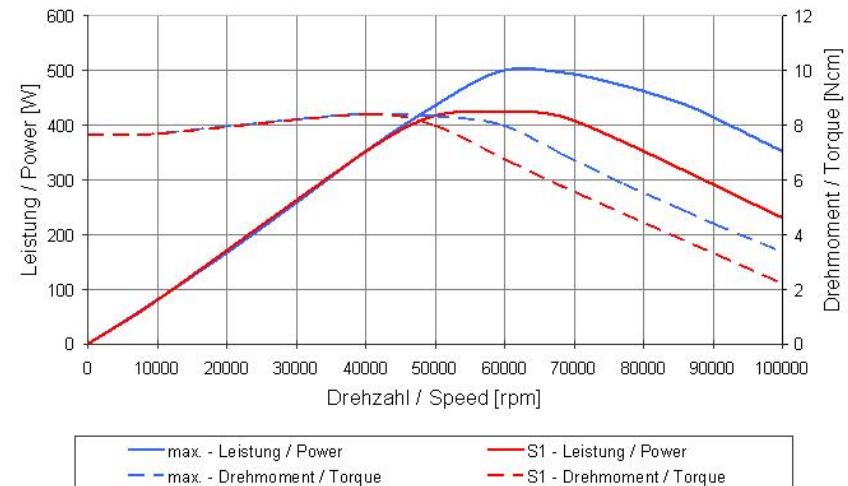
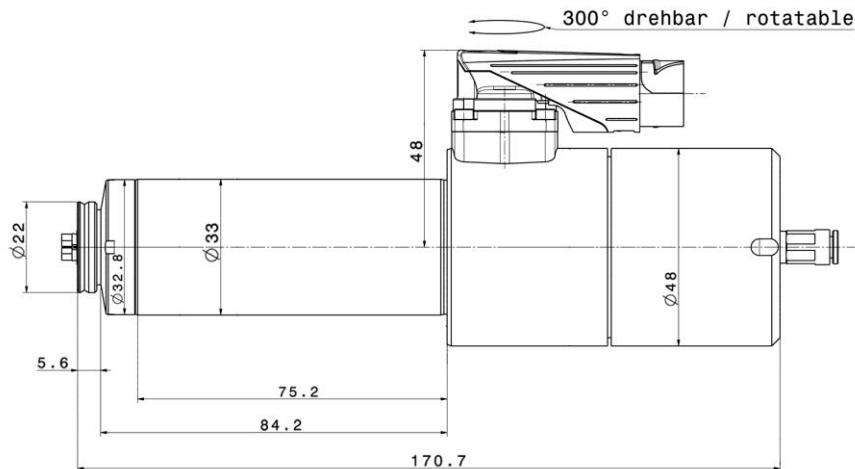
Option- SemiAuto Bit Change

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)



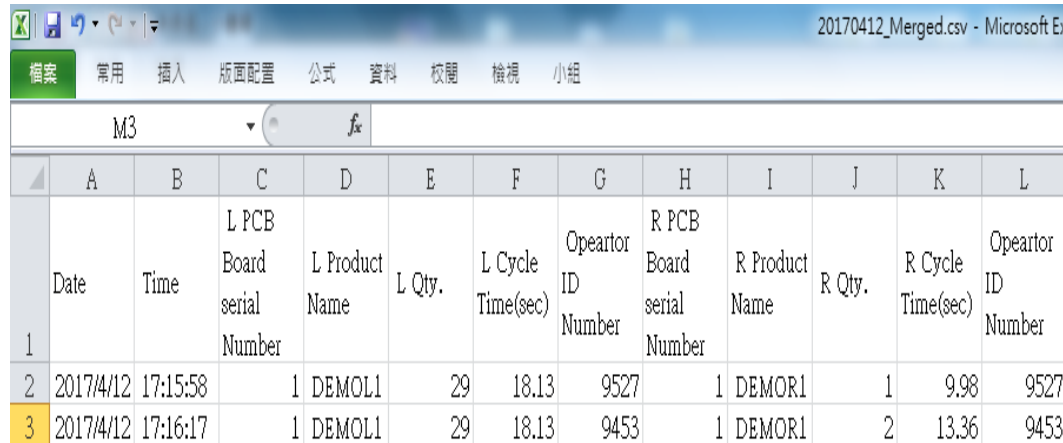
Option- Product Traceability & MES

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.

It would need to equip barcode reader to enable the function

***Manual Barcode Reader only**

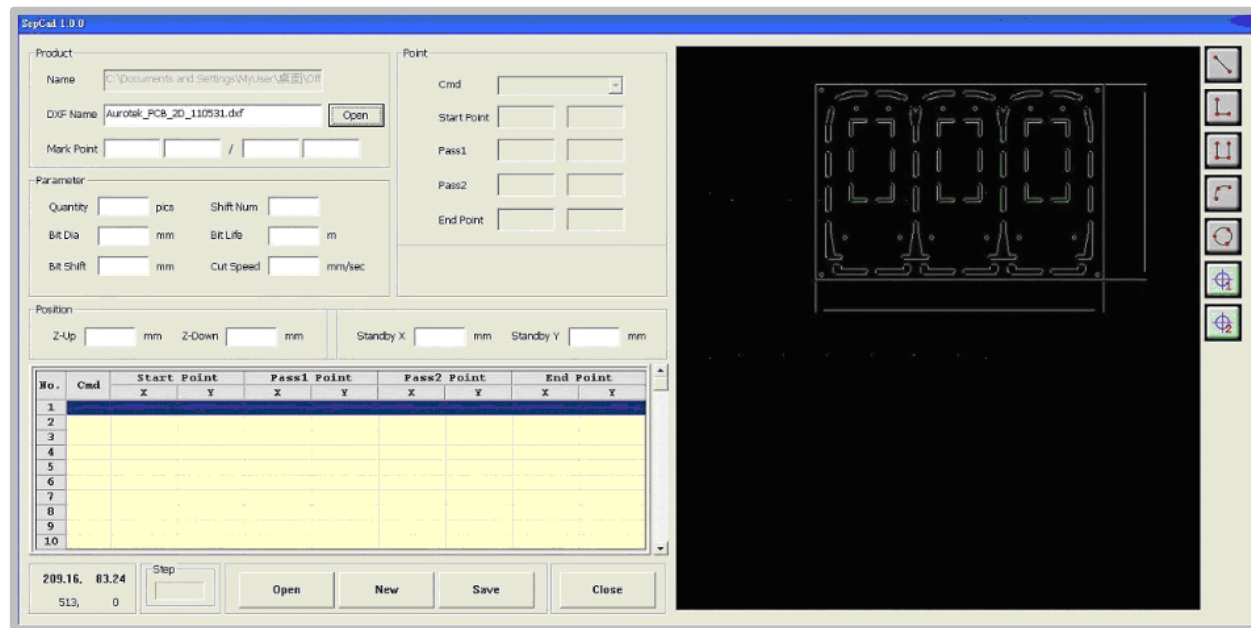


| 20170412_Merged.csv - Microsoft Ex | | | | | | | | | | | | |
|------------------------------------|-----------|----------|---------------------------|----------------|--------|-------------------|--------------------|---------------------------|----------------|--------|-------------------|--------------------|
| M3 | | | | | | | | | | | | |
| | A | B | C | D | E | F | G | H | I | 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.



More 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

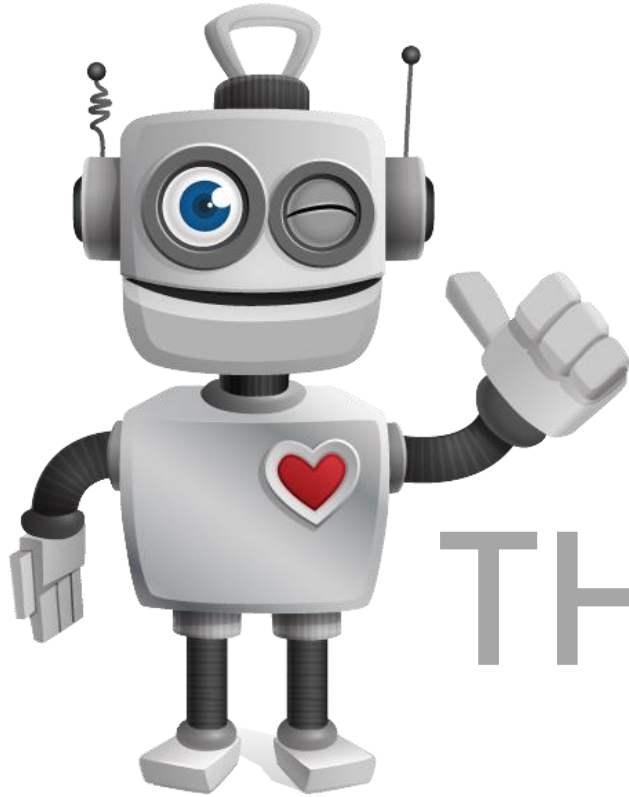
User could adjust spindle speed by operating software,
To use different speed for different PCB material

USB Backup System

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

Global Customers





THANK YOU!

Aurotek® AUROTEK CORPORATION
A Complete Solution from One Source

