USER MANUAL

V.1.4 SEP 2012

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1. Important Information

Thank you for purchasing our cutting plotter.
Before you use the cutting plotter, please make sure that you have read the safety precautions and instructions below.

Notes, Cautions, and Warnings

NOTE: A NOTE indicates important information that helps you make better use of your cutting plotter.

CAUTION: A CAUTION indicates either potential damage to cutting plotter or loss of data and tells you how to avoid the problem.

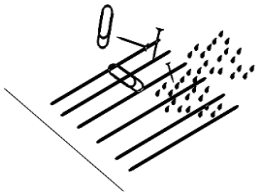
WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

WARNING

Do not disassemble or remodel the plotter

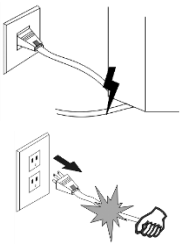
• Never disassemble or remodel the plotter.
Disassembly or remodeling can result in an electric shock or breakdown of the machine.

Avoid locating the plotter in a damp environment



• Do not use the plotter in a damp place.
• Do not splash water onto the machine.
Use in such an environment can give rise to fire,electric shocks or breakdown of the plotter.

In case abnormal event occurs.

• Use of the plotter under an abnormal condition where the device produces smoke or strange smell can result in fire or electric shocks. If such an abnormality is found, be sure to turn off the power switch immediately and unplug the cable from the wall outlet. Check first that the plotter no longer produces smoke, and contact your distributor for repair. • Never repair your plotter by yourself since it is very dangerous for you to do so.	
Handling of the power cable	
Use the supplied power cable. Take care not to damage, break or work upon the power cable. If a heavy material is placed on the power cable, or if it is heated or pulled, the power cable can break, thus resulting in fire or electric shocks.	

⚠CAUTION

Do not place the cutting plotter in below places:

- A place exposed to direct sunlight.
- On an inclined surface.
- A place where temperature or humidity varies significantly.
  Use the plotter under the following environmental conditions:
  Operating environment: *20 to 35*°C 35 to 65% (Rh)
- A place that vibrates.
- A place exposed to direct air flow from an air conditioner or the like.
- Around a place where flame is Used.

For blade

- Do not touch the cutter blade, which is very sharp.
- Do not shake or swing the cutter holder; otherwise, the blade may come off.

Be careful with the movable parts

- During an operation, do not touch any of the moving parts of this machine (such as the carriage). Also be careful to make sure that clothing and hair do not get caught.

Sheets

• Straighten the sheet of media, if significantly curled, before using it for printing. Heavily curled sheet affects the cutting (plotting) result.
Always put the pinch rollers within the red marks.
Keep the tools away from children where they can reach.
Always connect the power cable to a grounded outlet.

2. General Information

2.1 Introduction

Our cutting plotters have been designed to produce computer-generated images or perform contour cutting on sheets or rolls of vinyl media.
This manual covers the following models of TH/TS cutting plotters:
·TH 740 for media width: 50mm(1.97”) ~ 770mm(30.3”)
·TH 1300 for media width: 50mm(4.7”) ~ 1270mm(50”)

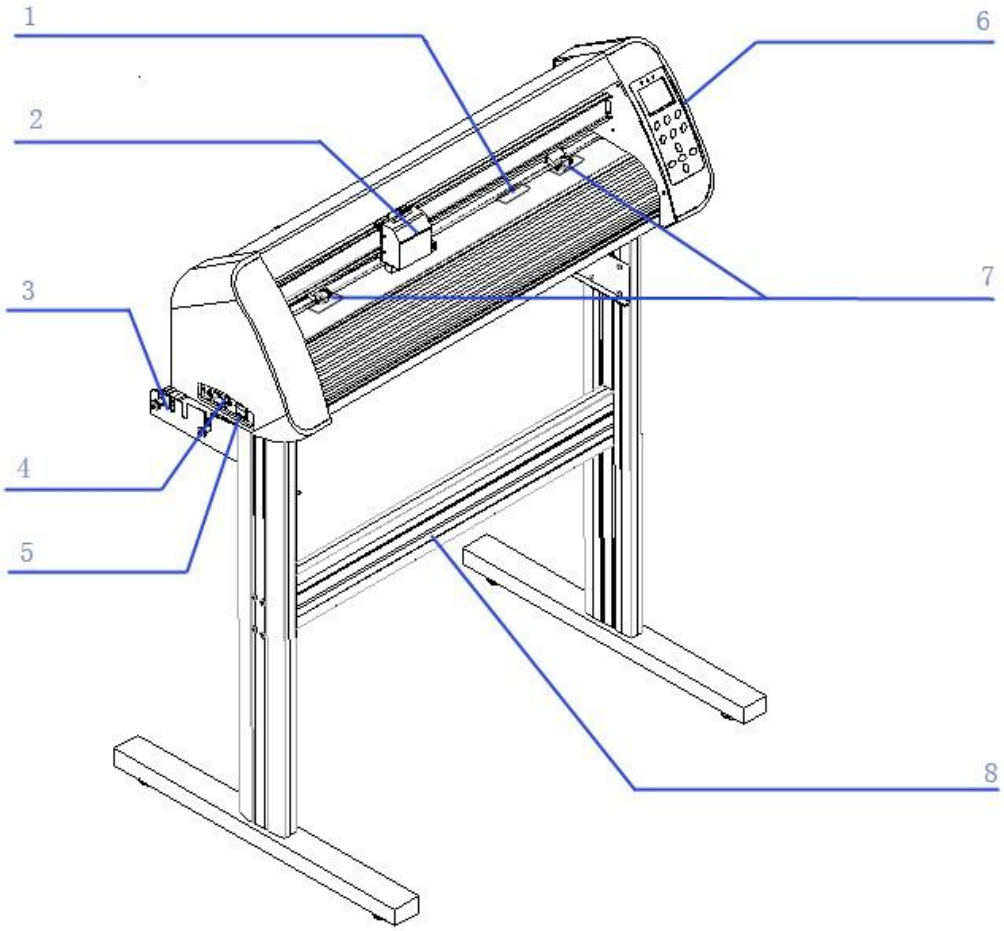
2.2 Package Items

The package of the contents the items listed below, please check carefully.
If you find any item missing, please consult your local dealer for further assistance

Item	Parts	Qty	Annotation
1	Warranty card	1	
2	Power cable	1	
3	USB cable	1	
4	Serial cable	1	
5	Blade holder	1	
6	Blade	3	
7	Pen holder	1	
8	Resource CD	1	User Manual,FTDI_USB Driver,Artcut driver,AutoCAD plugin, CorelDraw_Plugin 5.0,PDF reader,Scale Calculator
Optioal Item			
9	Stand	1	
10	M5*45	16	
11	M5*8	8	
12	M4*8	12	
13	Washer	16	

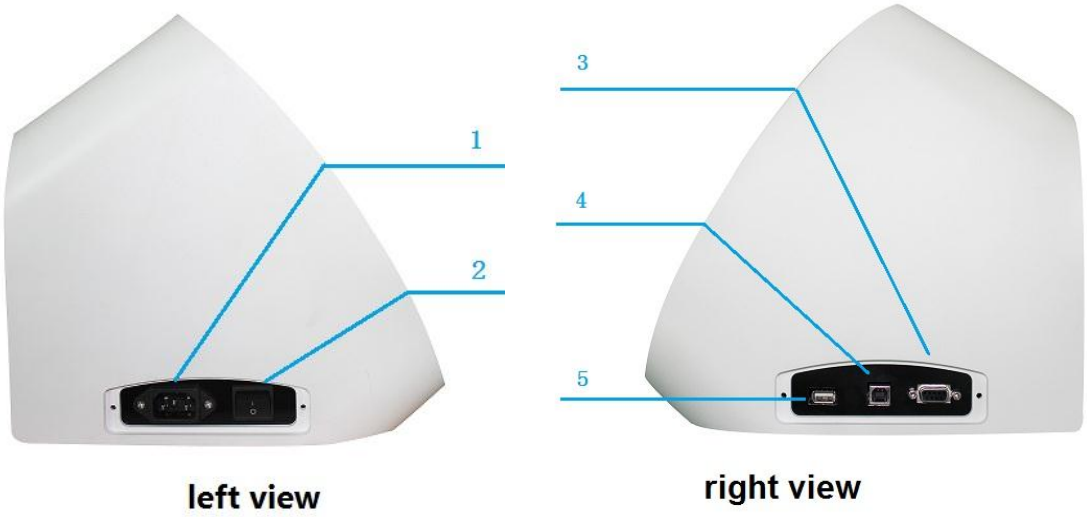
2.3 View

2.3.1 Front view



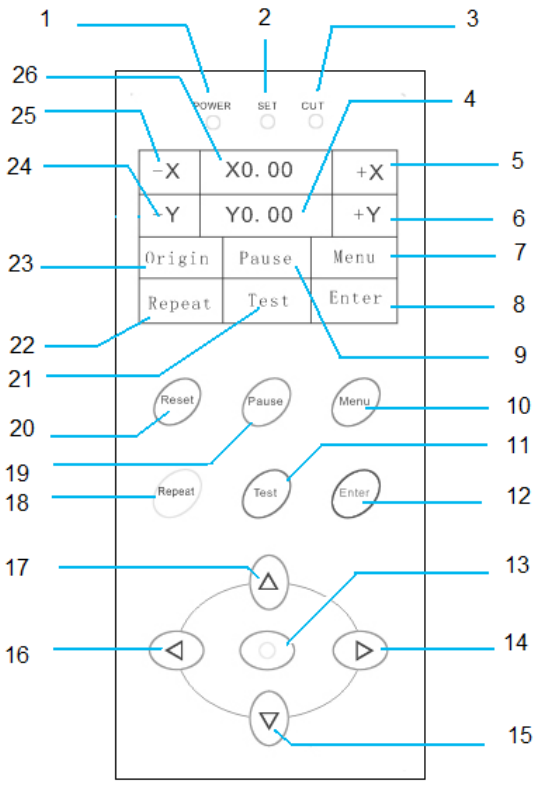
1	Steel axes	2	Carriage
3	Roll holder	4	AC power connector
5	Power switch	6	Control panel
7	Pinch roller	8	Stand (optional)

2.3.2 Left and right view



1	AC power connector	2	Power switch
3	Serial port	4	USB port
5	U disk slot		

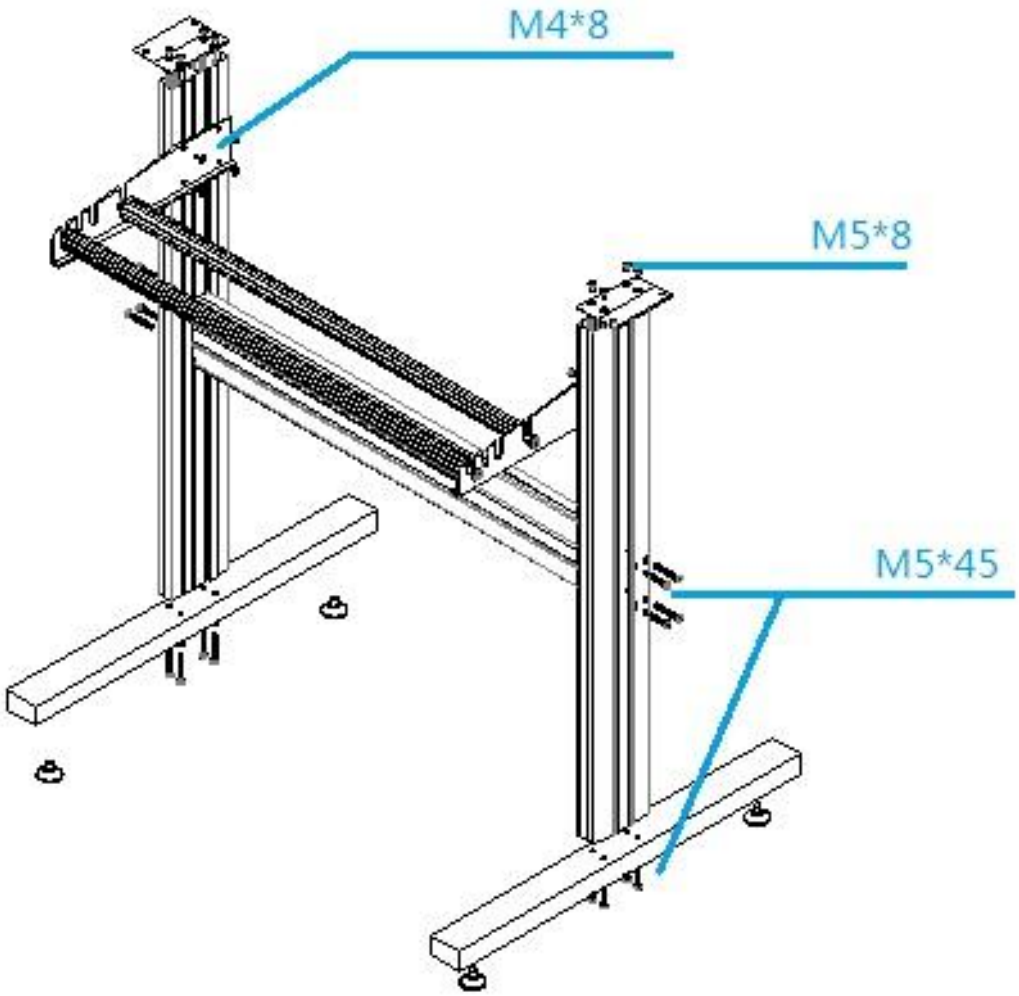
2.3.3 Control panel



1	power light	2	set up light	3	operate light
4	info status zone	5	X Rightward button	6	Frontward button
7	Menu button	8	Enter button	9	Pause button
10	Menu button	11	Test button	12	Enter button
13	X,Y origin button	14	X Rightward button	15	Y Frontward button
16	X Leftward button	17	Y Backward button	18	Repeat cutting button
19	Pause button	20	Reset button	21	Test button
22	Repeat cutting button	23	X,Y origin button	24	Y Backward button
25	X Leftward button	26	info status zone		

3. Set up your cutting plotter

3.1 Stand (optional)



CAUTION: Must use M5*45 screws with washers.

Must use M4*8 screws to fix the cutting plotter to the stand.

3.2 Connect your cutting plotter

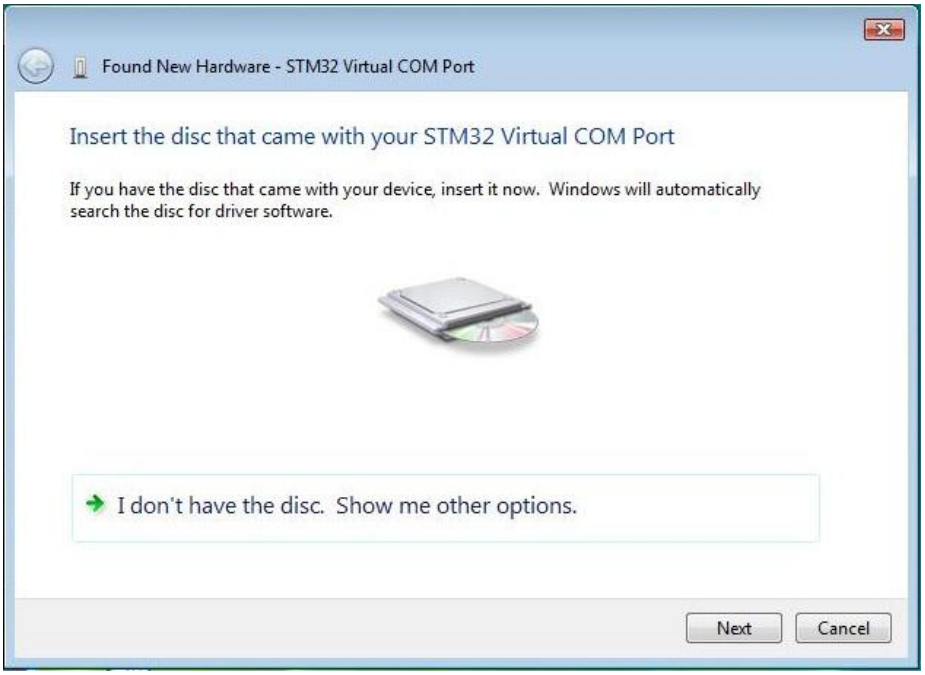
3.2.1 Connect the AC cable

Connect the AC cable to the AC connector on the plotter and to the electrical outlet.

3.2.2 Connect the USB cable (optional)

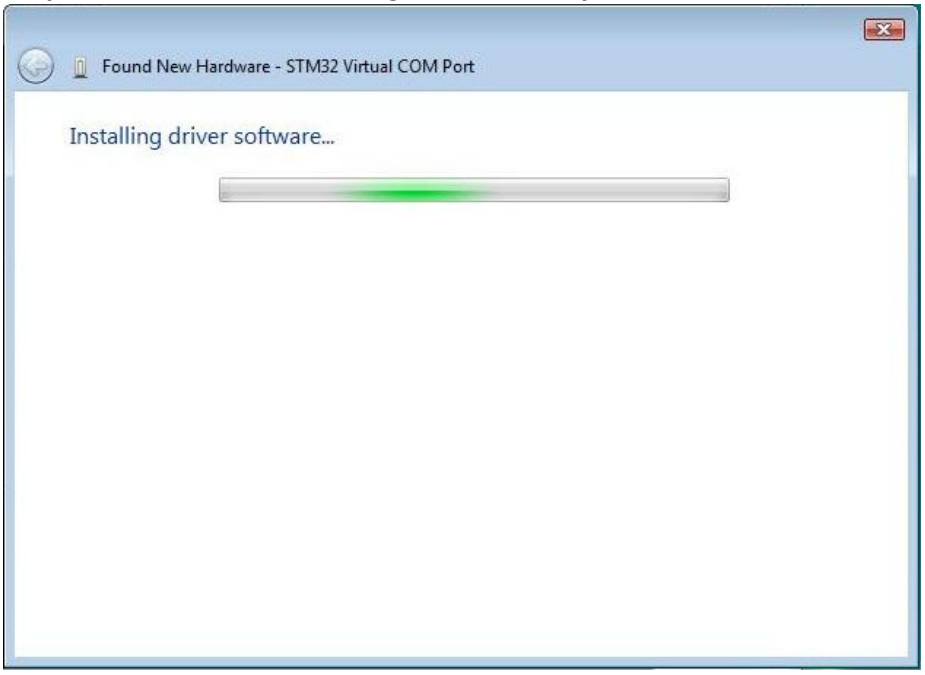
If you want to use the USB cable, you have to install the USB driver.

① Insert the CD that came with your cutting plotter and connect USB cable, power on the appliance, the computer will find new hardware, as below:

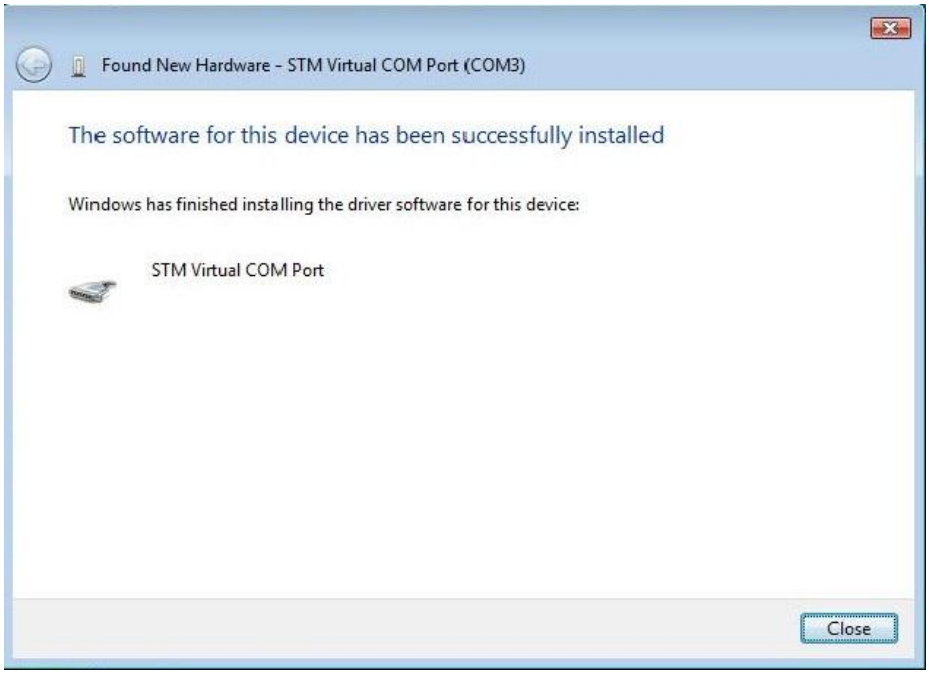


② Click **"Next**", the computer will search CD for USB driver automatically.

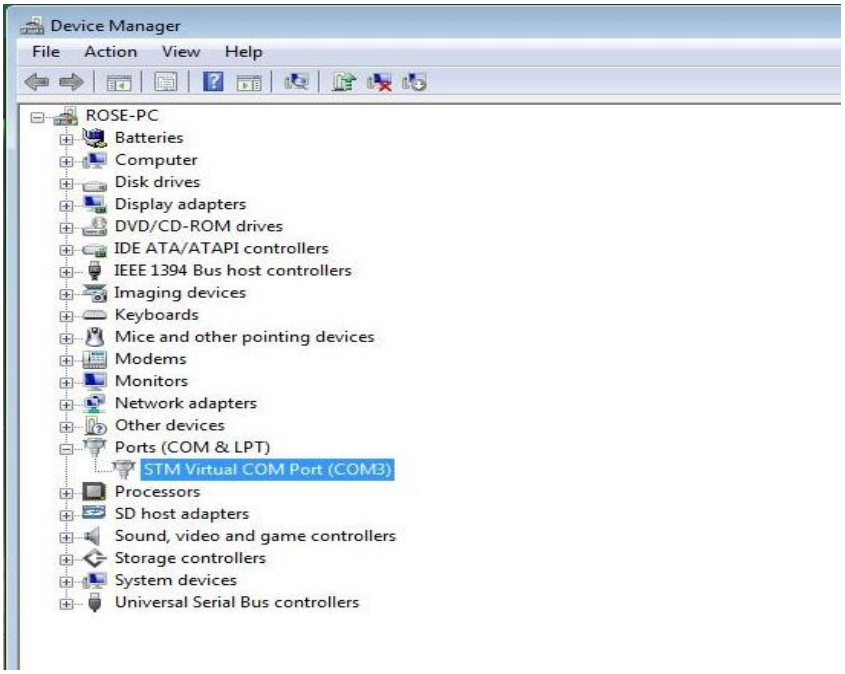
③ Then the system will finish installing automatically



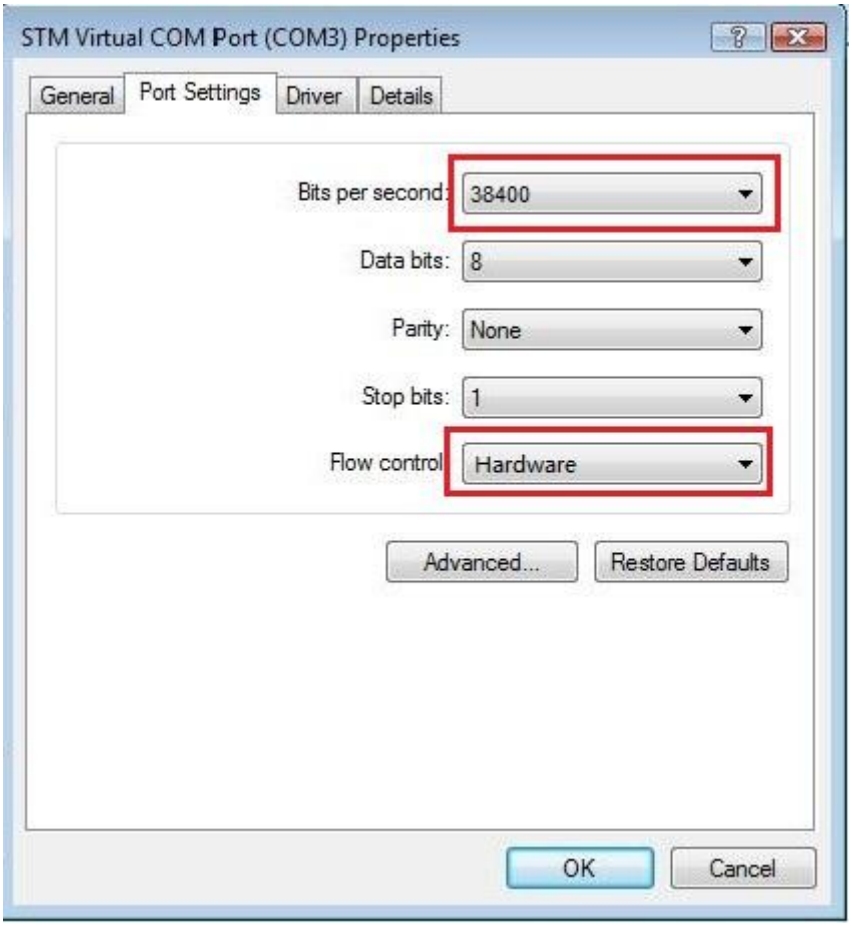
④. Click "**Close**"



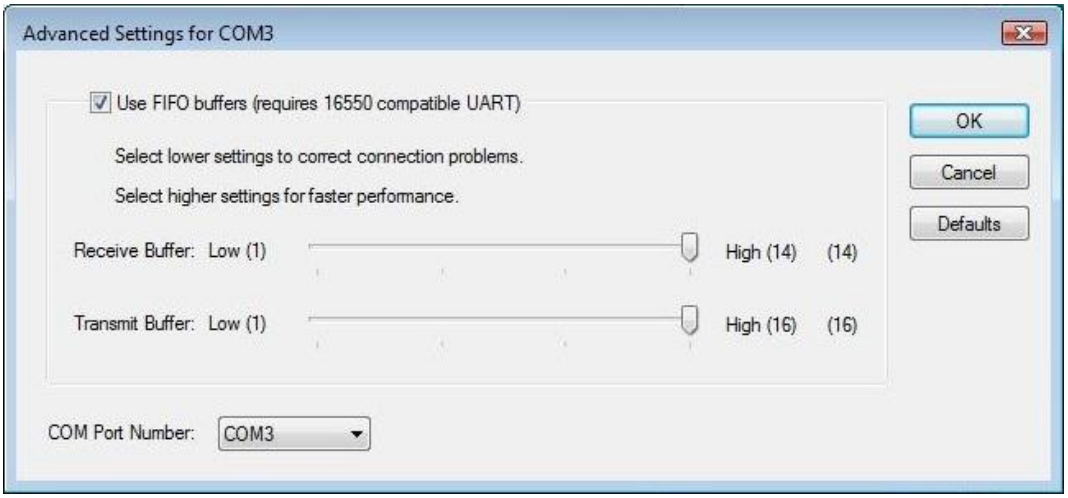
⑤. If driver was installed successfully, You can find a new port in **Device Manager**, shown as below



if you want to modify the default port No. of USB driver, just right-click port（COM3）as shown above, and select "**Properties**" in context menu. Then set the "**Bits per second**" and "**Flow control**" as below:



Then select "**Advanced…**",



Select the Port Number. that you want to modify, then press "**OK**"

CAUTION: The "Bits per second" must be set as "**38400**".

3.2.3 Connect the RS-232 cable (optional)

When you want to connect the RS-232C cable, you must observe the following notes

NOTE: (1) When connecting the cables, turn off first the power to the device and that to the host computer which the power cable is to be connected.
(2) Do not plug in or unplug any cable during data transferring.

3.3 Blade installation

Figure 3-1 and 3-2 are the drawings of the blade holder.

Figure 3-1

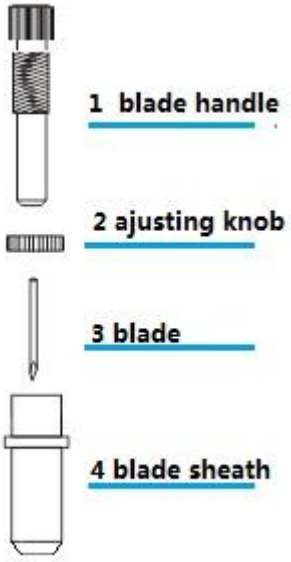
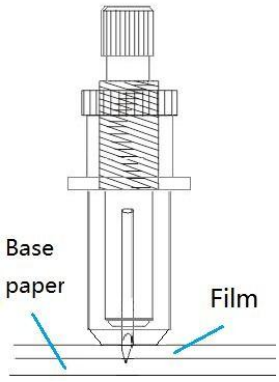


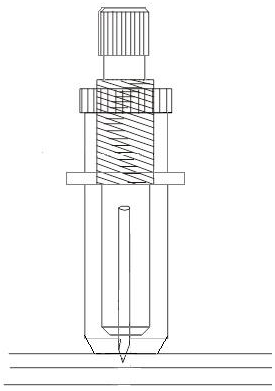
Figure 3-2

How to install a blade

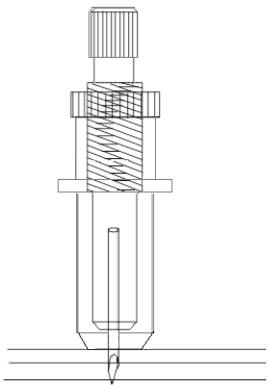
(1) Remove the blade sheath by rotating it.
(2) insert the blade into the hole of the blade handle.
(3) Adjust the blade tip to suitable length by rotating the adjusting knob and blade sheath clockwise or count-clockwise.



OK



The length of blade is not enough



The length of blade is too long

NOTE: The suitable length means the blade's length is adjusted 0.1mm more than film's thickness and it can completely cut through the film layer yet avoid penetrating the base paper.

3.4 Blade holder installation

Install the blade holder into the tool holder of the carriage, press the brim of the blade holder against the tool holder.rotate the knob of the tool holder clockwise and surely fix it.

NOTE: Fix the tool holder firmly. If not, accurate and high-quality cutting will not be achieved.

3.5 loading a sheet

Either a piece of sheet or a roll of sheet can be loaded on the plotter.

Figure 3-3

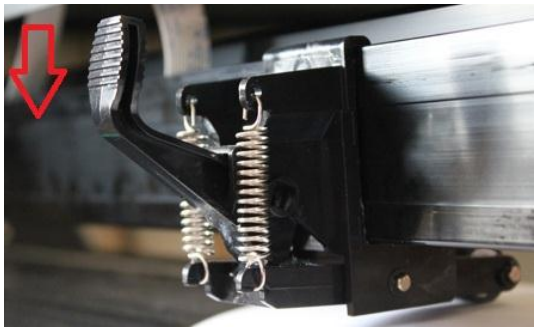


Figure 3-4

(1) Lift the lever to rise the pinch rollers. (see Figure 3-3)

(2) Load the sheet and slide to under the pinch rollers form either the front side or backside. The alignment ruler on the platen will help you to adjust the sheet precisely.

(3) Slide the pinch rollers manually to the proper position. Be sure the pinch rollers must be positioned above the steel axes. The red mark on the top trail will remind you where the steel axes are.

(4) Press the lever to lower down the pinch rollers.(see Figure 3-4)

NOTE: If you want to cutting a sheet without a reversed adhesive paper (like a pasteboard),You should use a sticker sheet under it.

CAUTION: Move the pinch roller by applying force at the rear portion of the pinch roller support. Do not move it by holding its front rubber roller.

4. Basic Operations

4.1 Pressure Test

It will help you to know the conditions of the blade.

Press the or Test button, Appliance will cut a rectangle which shown as above, Check if the rectangle can be completely teared off or not in order to make sure the right pressure and the length of the blade tip

NOTE: When the cutter blade is worn and dull, you can use it temporarily by enhancing the value of PRESSURE. However, you are recommended to replace the worn cutter blade with a new one to ensure a satisfactory cutting quality.

4.2 Pressure and Speed

(1) Press or Menu button goes to the interface

-X	F100	+X
-Y	V500	+Y

in which F100 is pressure，V500 is speed.

(2)

Pressure	◀ or -X	Decrease the pressure	Once for 5 Min is 5
	▶ or +X	Increase the pressure	Once for 5 Max is 500*
Speed	▲ or -Y	Decrease the speed	Once for 25 Min is 50
	▼ or +Y	Increase the speed	Once for 25 Max is 500

(3) After adjusting the Pressure or Speed, press or Enter to save the settings.

4.3 Languages and Baud rate

(1) Press or Menu button goes to the interface

-X	English	+X
-Y	B38400	+Y

Language	◀ or -X ▶ or +X	Switching between Chinese and English
Baud rate	▲ or -Y	Switching Between 38400 and 56000

(2)

	or +Y	

(3) Then press or Enter to save the settings.

NOTE: To ensure it works, the baud rate of cutter must be the same as the software on computer.

4.4 X, Y axis scale

(1) Press or Menu button goes to the interface

-X	Sx0	+X
-Y	Sy0	+Y

in which SX0 is the proportionality factor of X axis; SY0 is the proportionality factor of Y axis. Factor default is 0, if there is an error in the plotter, You can adjust them.

(2)

X axis	or -X	Decrease proportion of X axis
	or +X	Increase the proportion of X axis
Y axis	or -Y	Decrease the proportion of Y axis
	or +Y	Increase the proportion of Y axis

(3) Then press or Enter to save the settings.

NOTE: The value of the axis scale depends on the actual situation.

4.5 Distance between red dot and pen

(1) Press or Menu button goes to the interface

-X	Dx0	+X
-Y	Dy0	+Y

.

(2) Fix the sheet and pen, and press the pen manually to make a dot on the sheet.

(3) Press or Pause button, LCD will display interface

-X	Dx Set	+X
-Y	Dy Set	+Y

.

(4) Press 4 arrow Keys , , , , to move the red dot to the center of the dot just

made by pen,

(5) Then press or to save the settings.

NOTE: The settings will be stored in plotter all the time until you clear it.

4.6 Test the distance between red dot and pen

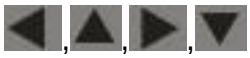
To test the distance from laser to pen is exact or not

(1) Press or button goes to the interface .

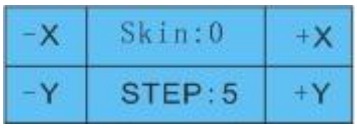
(2) Fix the sheet and pen and press pen to make a dot on the sheet.

(3) Press or button, the red dot will locate the dot automatically, if the red dot don't aim at the dot, It needs to be reset.

4.7 Skin of LCD and Step distance of jog motion

 are continuous motion keys.

are jog motion keys, You can set the distance of motion here, default is 5.0mm.

(1) Press or button goes to the interface 

(2)

Skin	or	Change the skin of LCD, there are 6 skins available
	or	
Distance of motion	or	Decrease the distance of motion, the min is 0.1mm
	or	Increase the distance of motion, the max is 100. 0mm.

(3) Then press or to save the settings.

4.8 Cutting from FLASH

The plotter has a built-in FLASH, Every file sent by computer will be saved in the built-in FLASH automatically. If it powered off, the file will not be lost, you can reuse it for cutting and no need to be sent by computer again.

(1) Press or goes to the interface .

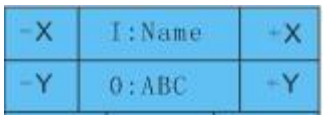
(2) Press or will continue processing the last working file.

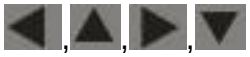
4.9 Cutting from U disk

The plotter can cut a file from U disk, the format of the file should be .PLT.

(1) Copy the .PLT format file to U disk, Insert the U disk into the plotter.

(2) Press or goes to the interface .

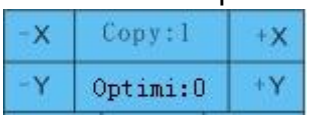
(3) Press or goes to the interface  .

(4) Press  to locate the file you want to use, it will display the file name

(5) Press or starts working.

4.10 Times of repeat cutting and Speed optimizing

When you cutting files from FLASH or U disk, you can set the times for repeat cutting

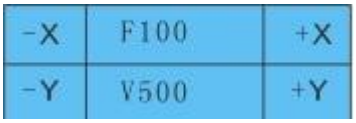
(1) Press or button goes to the interface  .

Numbers of Copy	or	Decrease the times of repeat cutting
	or	Increase the times of repeat cutting
Optimal Values	or	Decrease the optimized value
	or	Increase the optimized value .

Optimized Value	Conditions of Use
0	Cutting common material
1	Cutting a small roll of material
2	Cutting a big roll of material
3	Cutting thick and hard material. e.g. reflective film

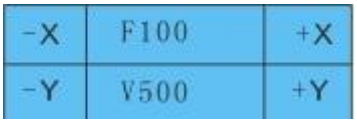
NOTE: The default is 1 time, Max is 500 times.

4.11 Restore to factory default setting

In interface  , press or , the settings will be

restored to factory default settings.

4.12 Blade and Laser test

In interface 

, press

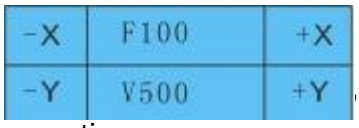
or

, the red dot will be on and off by turns, and the carriage will go down and up by turns.

4.13 Pause and Cancel during operating

(1) During operating, press

or

, the interface will change to 

, press

or

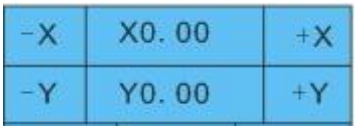
again, the plotter will continue operating

(2) In Pause status, press

or

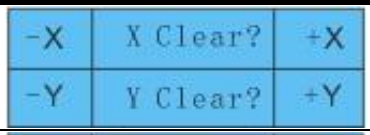
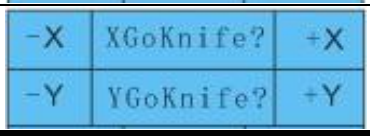
will cancel the current job.

4.14 Origin button

In interface 

,press or

different times, it will have different functions which are described as below:

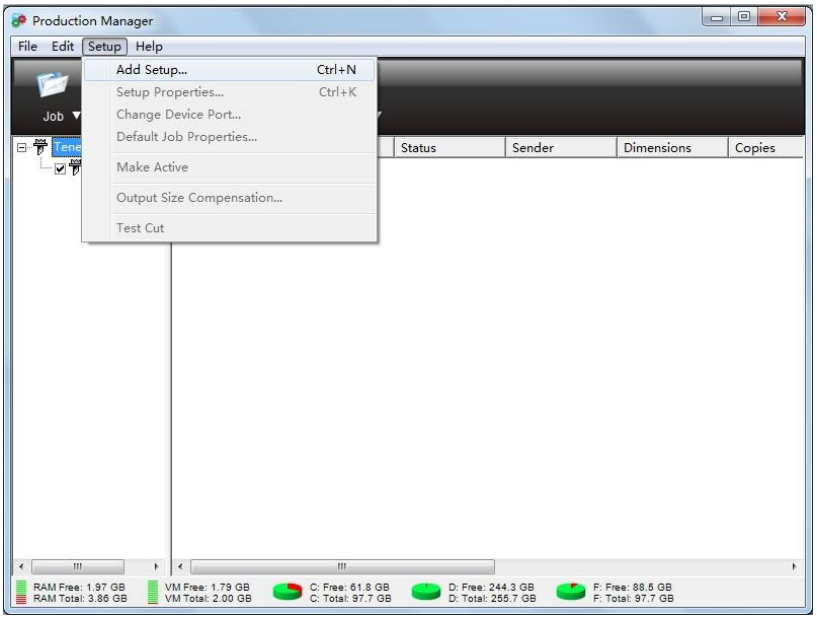
Times of press	Interface	Operation	Result
1		Press or button	X,Y coordinate value will be cleared
2			Carriage will change from blade to red dot
3			Carriage will change from red dot to blade

5. Advanced operations

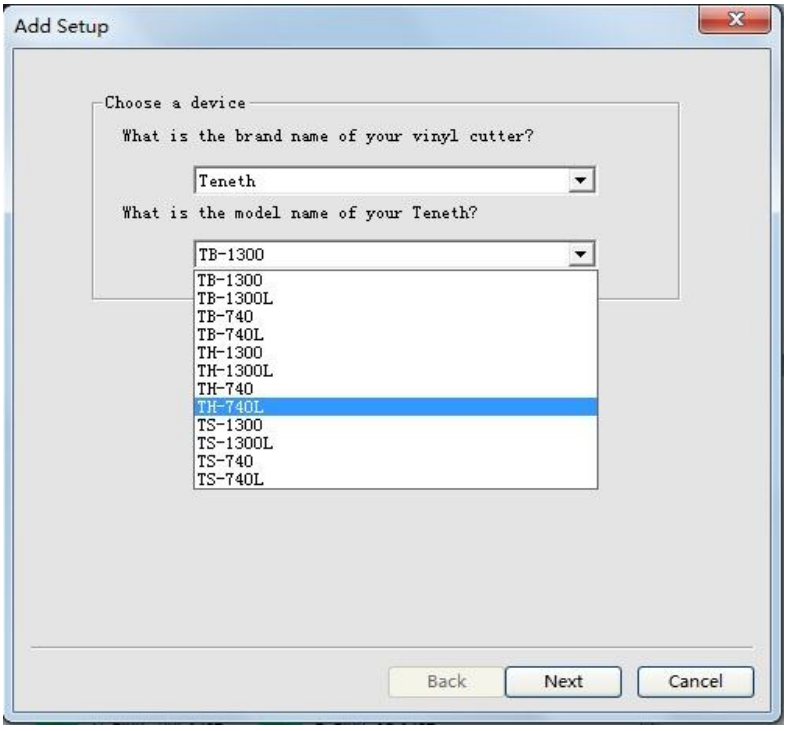
5.1 Cut in FlexiSTATER Edition

(1) Install the software

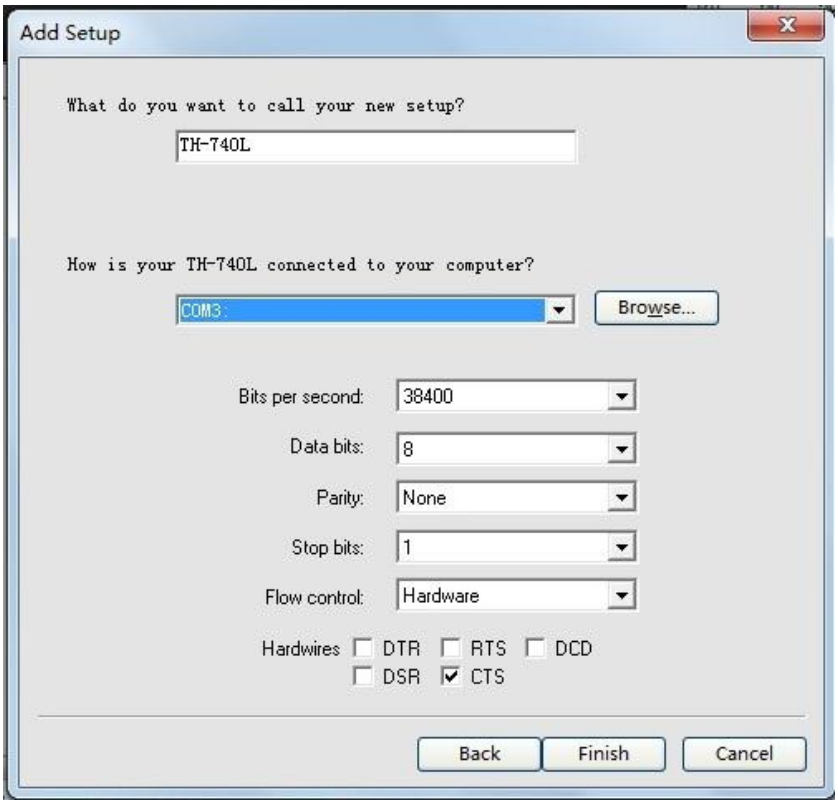
(2) After finishing the installation, run the **Production Manager**, Click **"Setup"->"Add setup…"**.



(3) Select the names of brand and model upon your plotter, and click "**Next**"



(4) Set parameters as below:

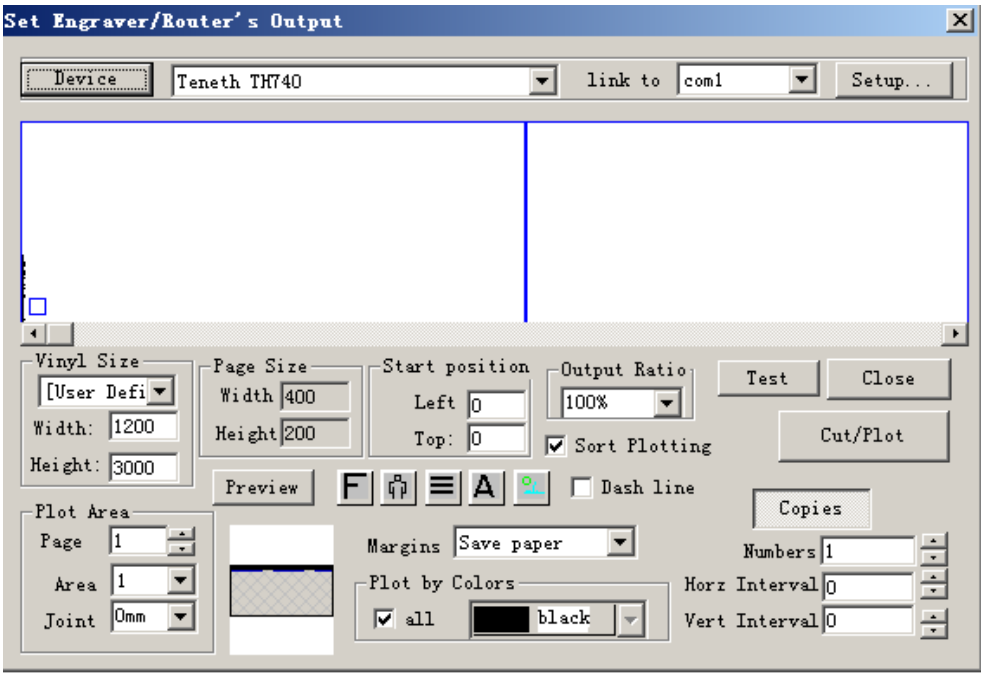


(5) Click "**Finish**".

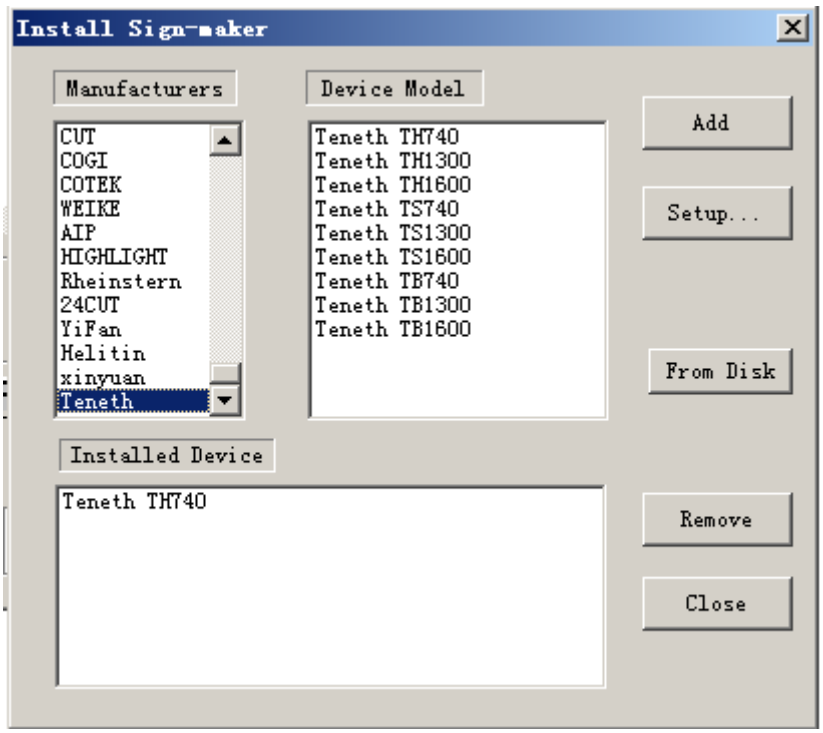
CAUTION: The port you select in Flexi must be the same as the port in "**Device Manager**" of your operating system.

5.2 Cut in ARTCUT

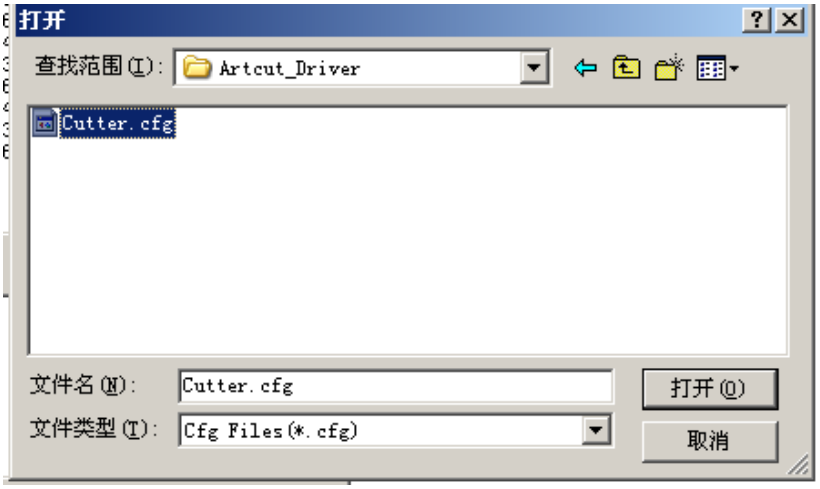
(1) Click "**Device**" in "**Set Engraver/Router's Output**" window



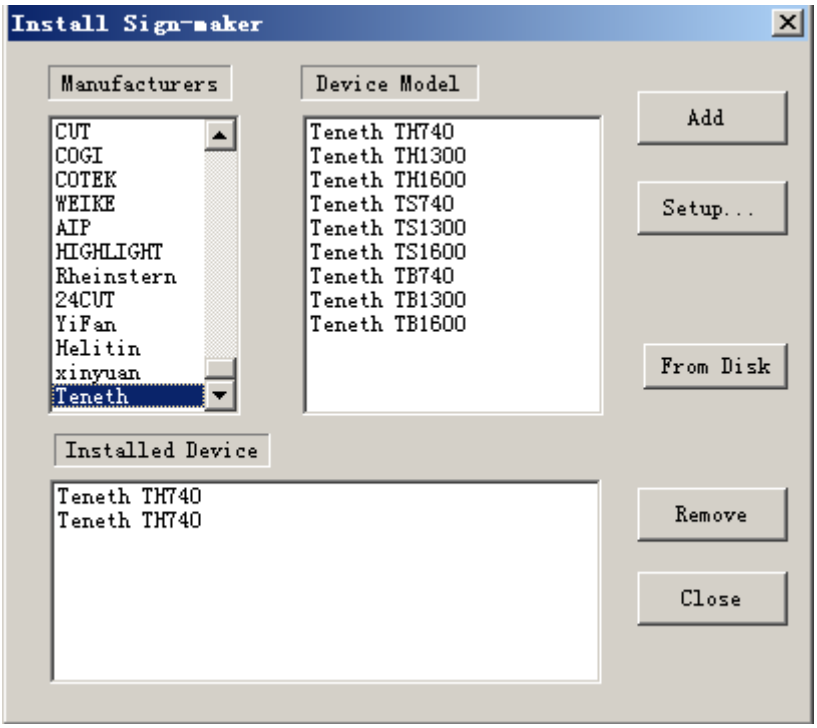
(2) It will display the **"Install Sign-make**r" window,



(3) Click "**From Disk**",

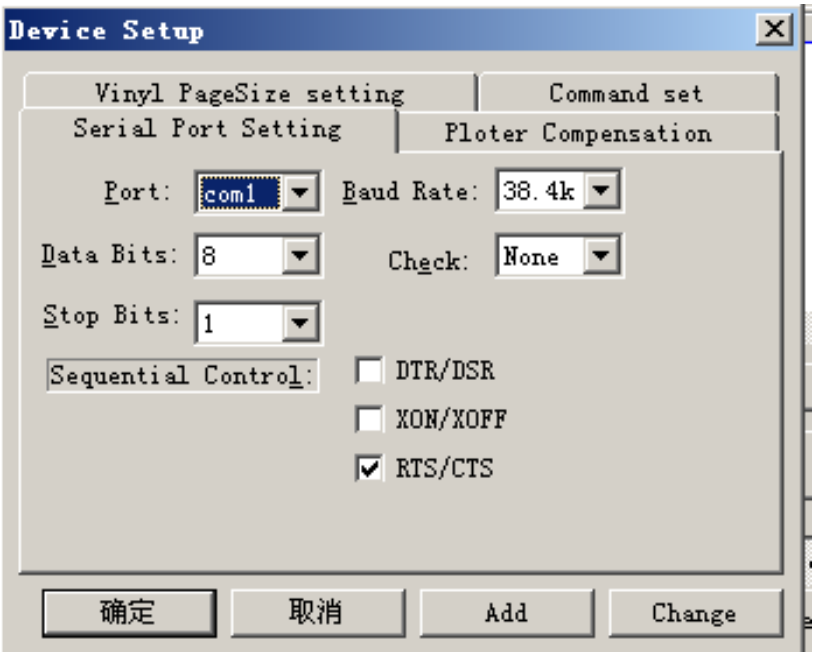


(4) Select "**ARTCUT driver**" -> "**Cutter.cfg**" file in CD



(5) Select "**Teneth**" for Manufacturers; Select appropriate model for Device Model，and then click "**Add**".

(6) Set port in the "**Serial Port Setting**" tab of the "**Device Setup**" window as below.



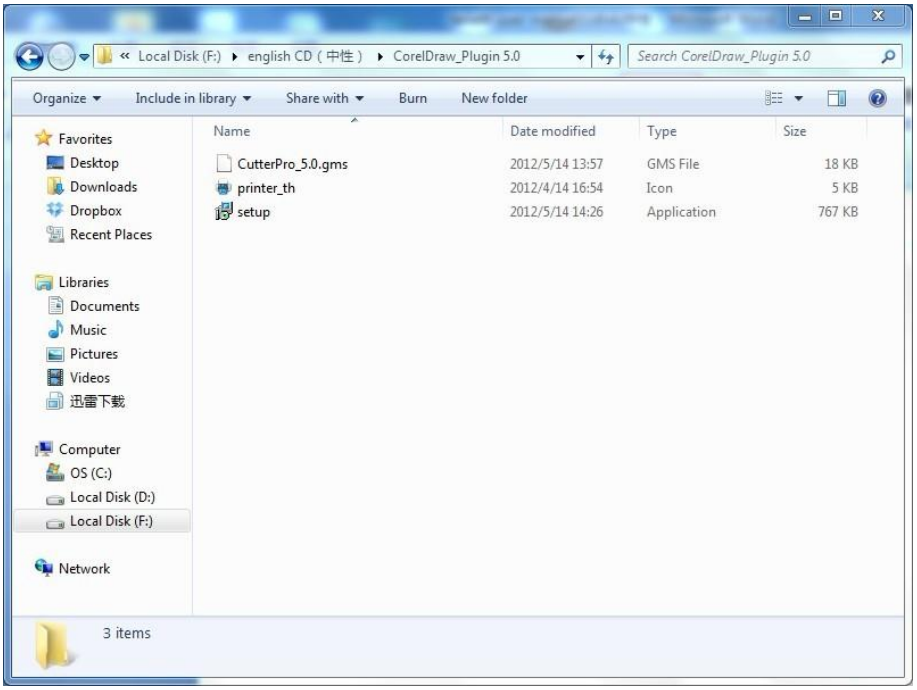
(7) Then you can use the ARTCUT software to work.

5.3 Output from CorelDraw

Your plotter supports output from CorelDraw, before that you should install a plug-in for the software.

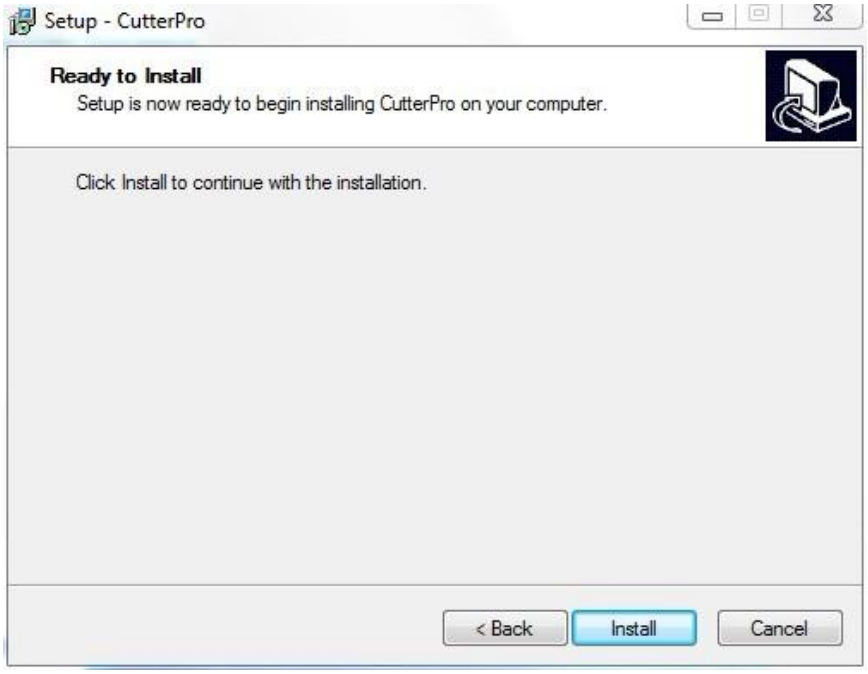
5.3.1 Install plug-in

(1) Find the **CorelDraw_Plugin 5.0** folder from the CD that shipped with your plotter



Double click “setup” to install it

Click “Next”.

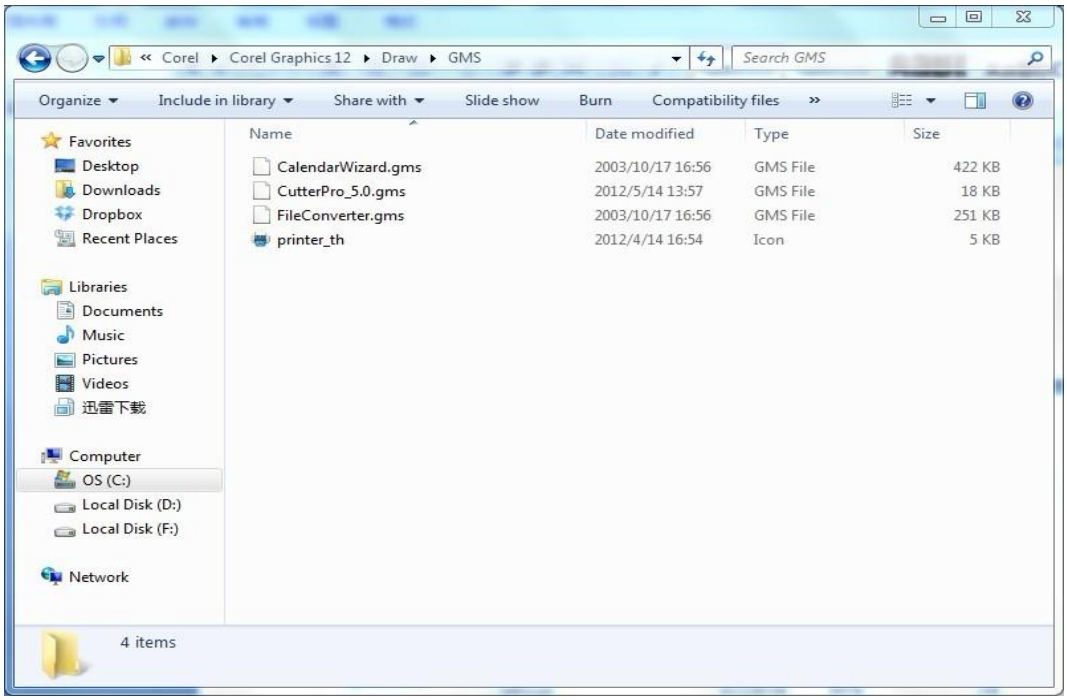


Click“Install.

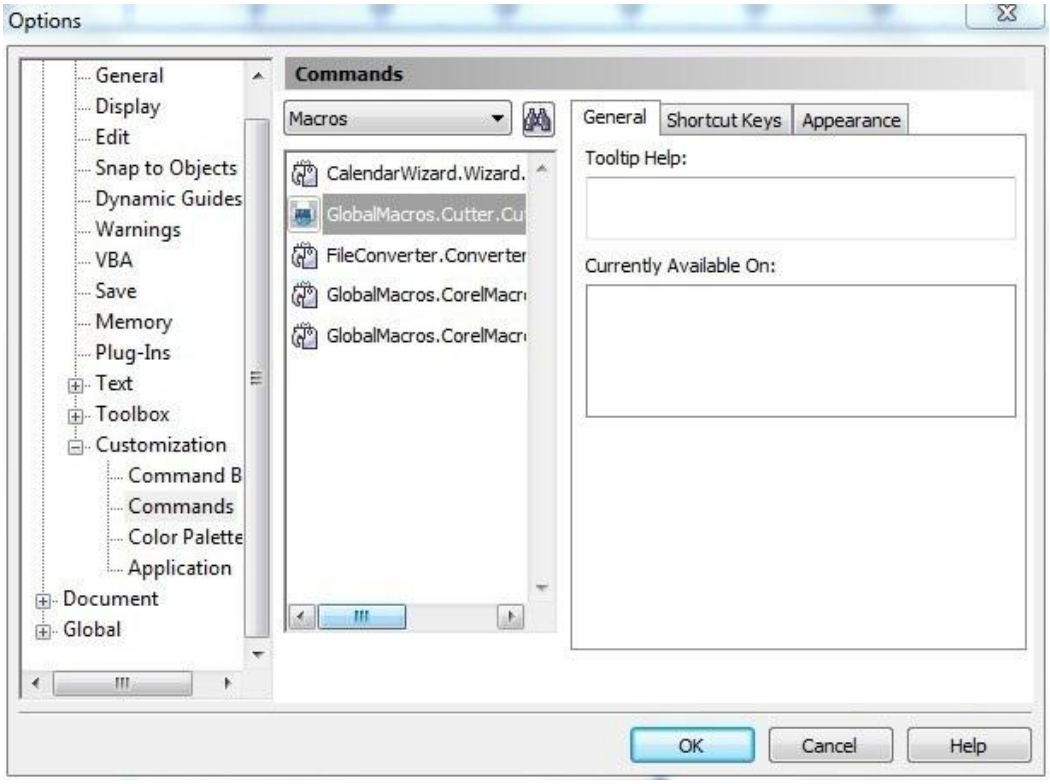
Click “Finish” to finish installation.

(2) Find the “**CutterPro_5.0.gms**” and “**printer_th**” in the **CorelDraw_Plugin 5.0** folder, and copy them to the **GMS** folder of Corel DRAW by following the path:

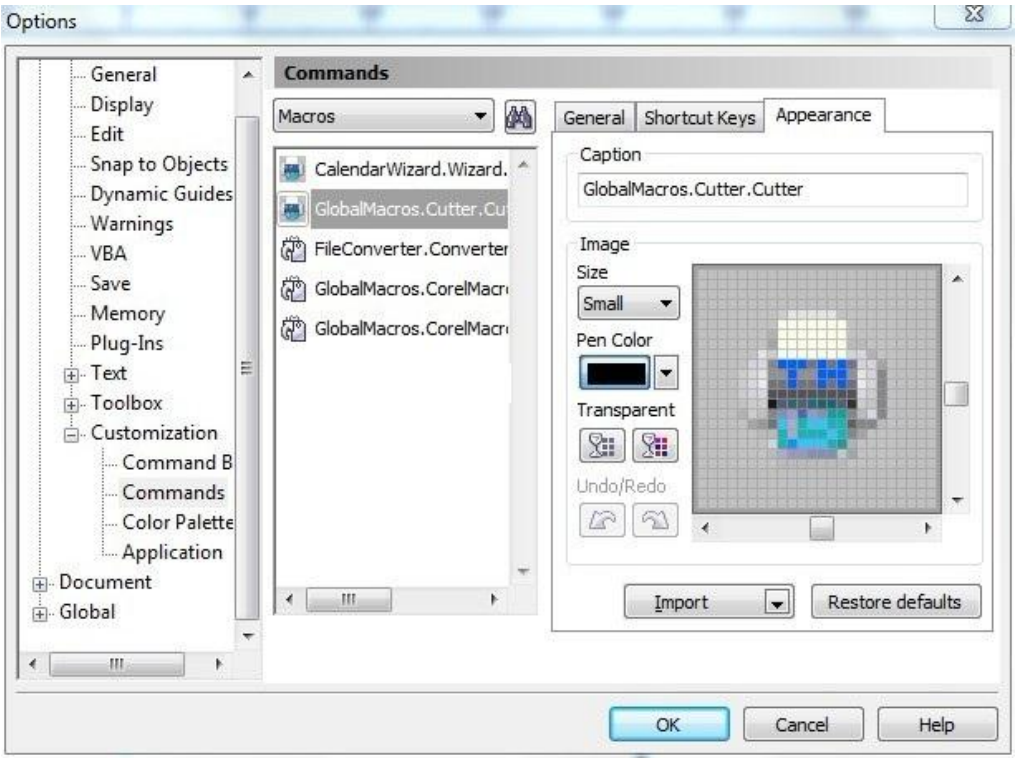
Corel->“CorelGraphics12”->“Draw”->“GMS”,

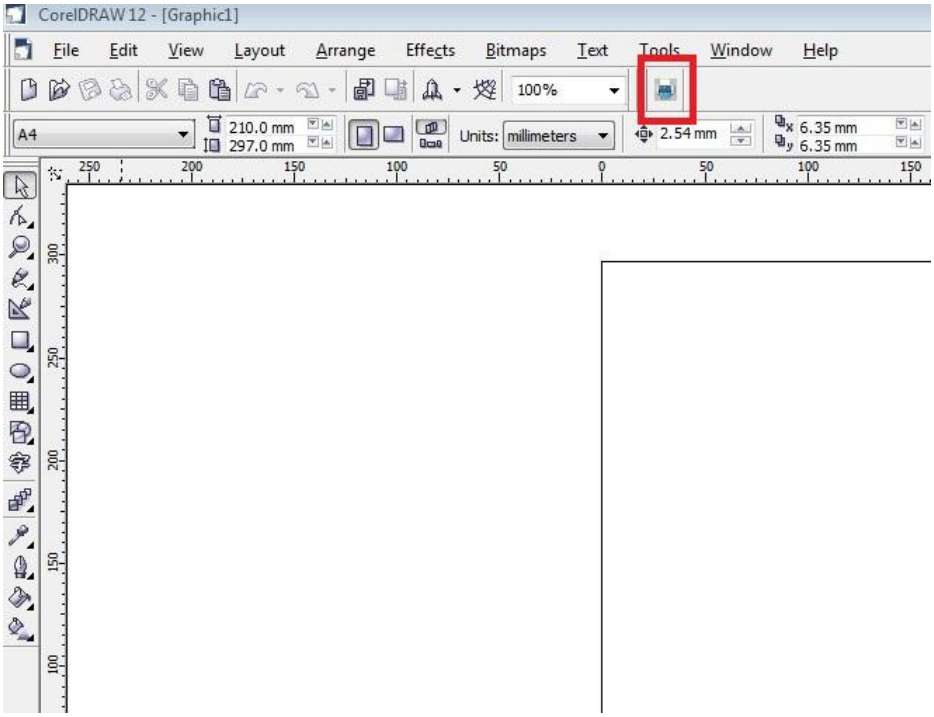


(3) Run CorelDraw to add plug-in by the following ways: Click "**Tools**"-> "**Customization…**" -> "**Commands**"-> "**Macros**".



(4) Click "**Appearance**"->"**Import**"->"**Files…**" Select "printer_th.ico" file, and drag the icon to toolbar of the CorelDraw software.



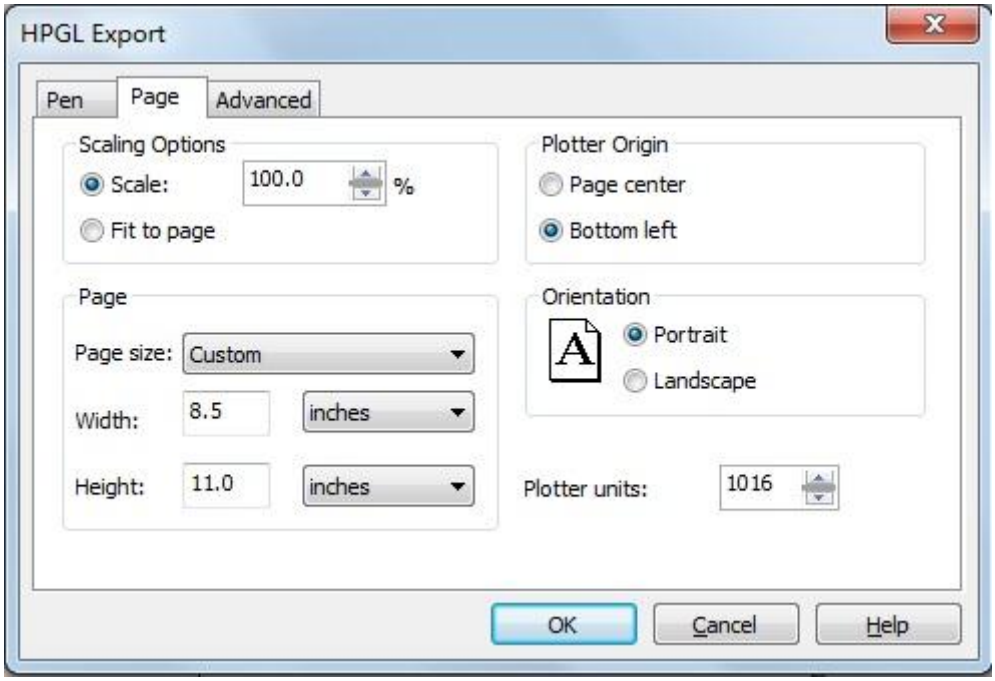


Now you can use the plug-in.

5.3.2 How to use

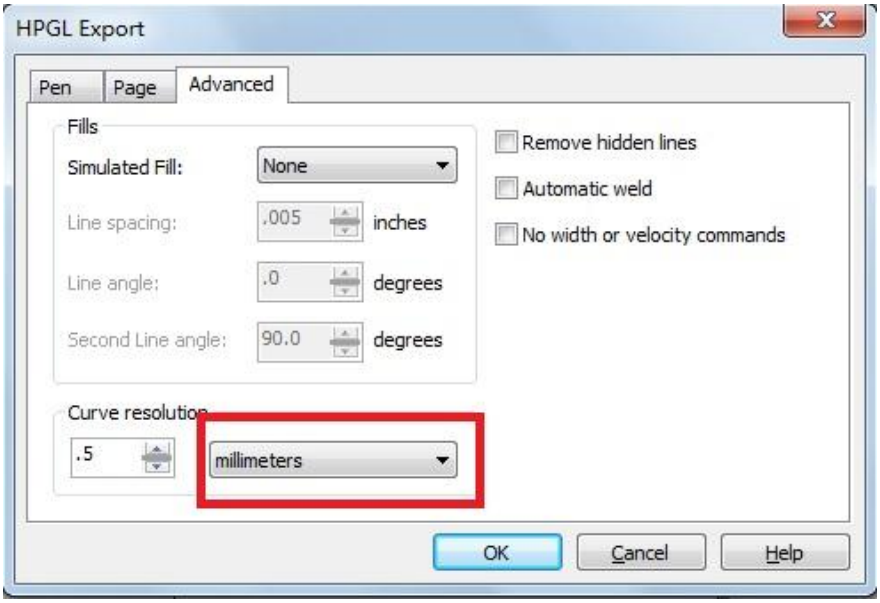
(1) Finish a file with CorelDraw

(2) Click the icon on the toolbar, it will pop up a "**HPGL Export**" dialog box.

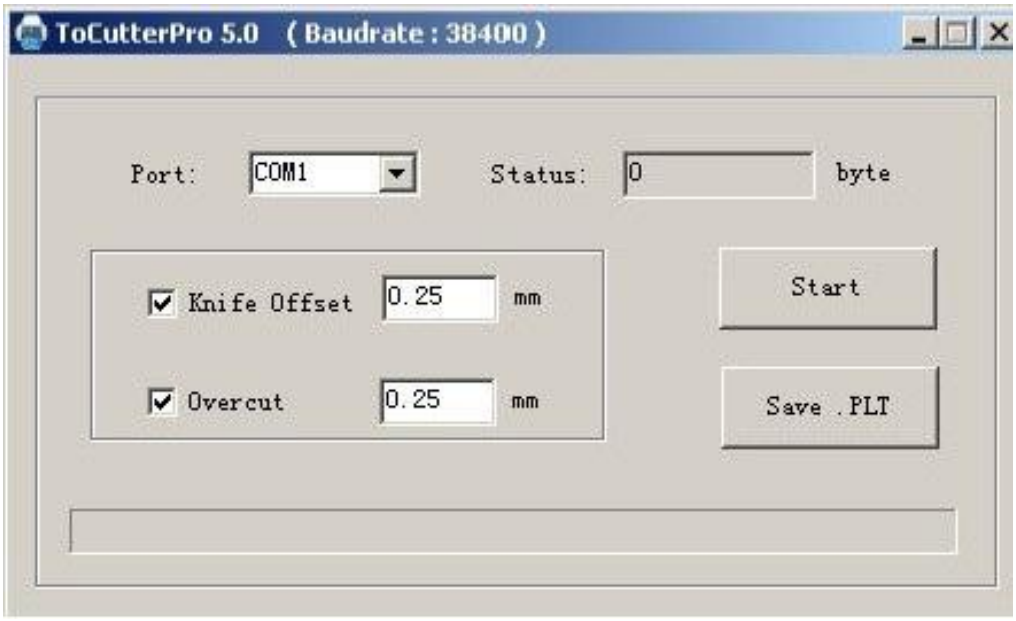


Select "**Page**" tab, and set the **Plotter Origin** as "Bottom Left", **Plotter units** as "1,016".

In "**Advanced**" tab, select "millimeters" for cutting smoothly.



Click "**OK**", it will display a output dialog box:



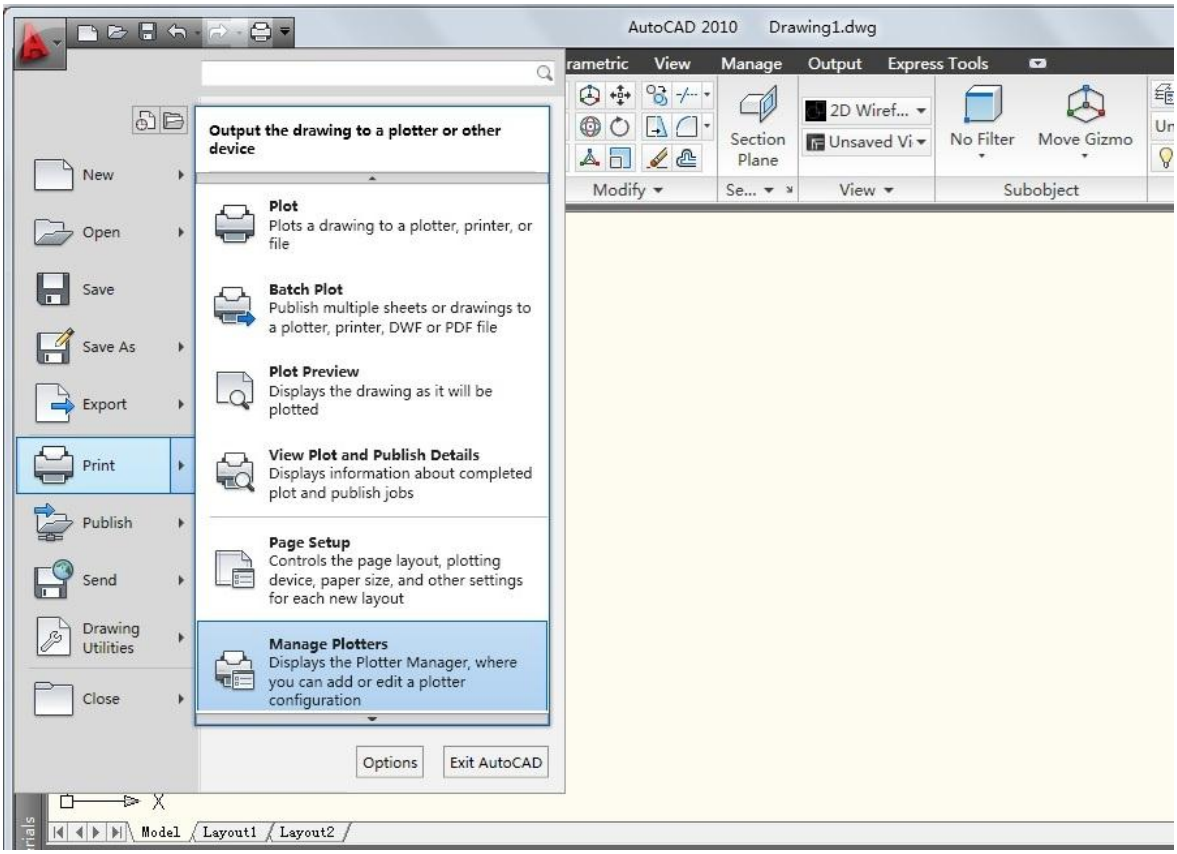
(3) Select the appropriate port and baudrate upon the plotter connected and set the value for the **Sharp Angle** and **Close**. Then click "**Start**" to do the task.

NOTE: You can also click "**Save .Plt**" to save the file to the computer, or copy it to a SD card or U disk for using on the plotter offline.

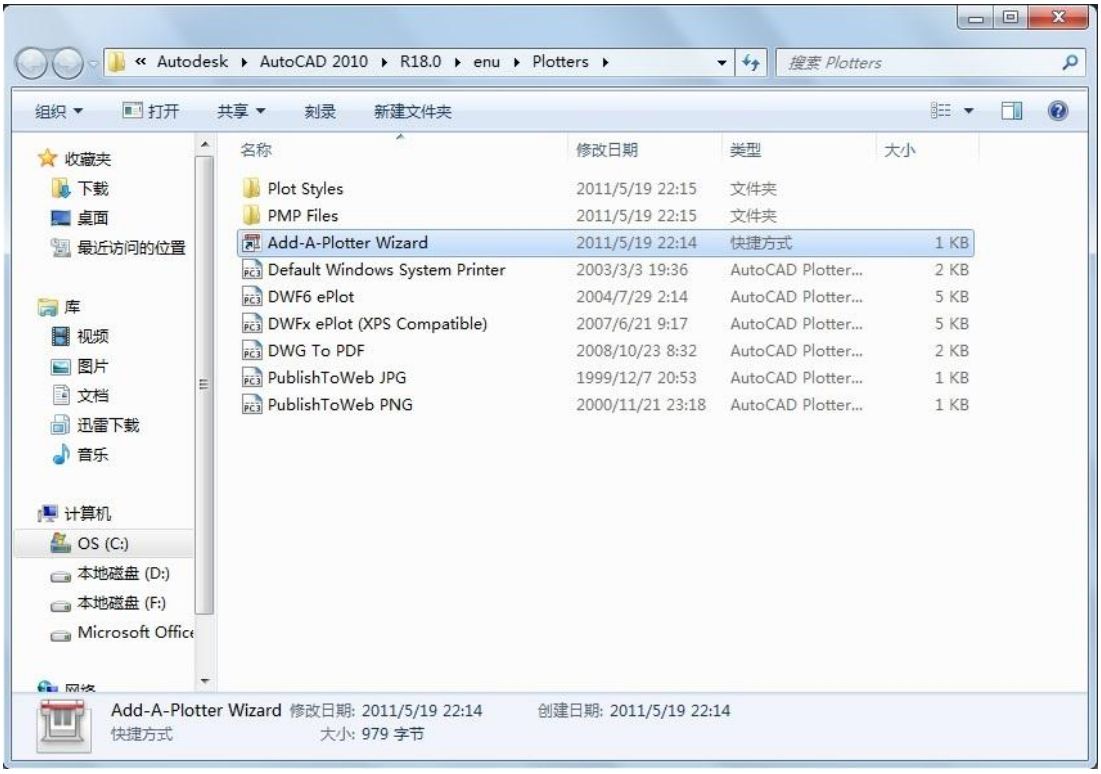
5.4 Output from AutoCAD

5.4.1 Add a plotter

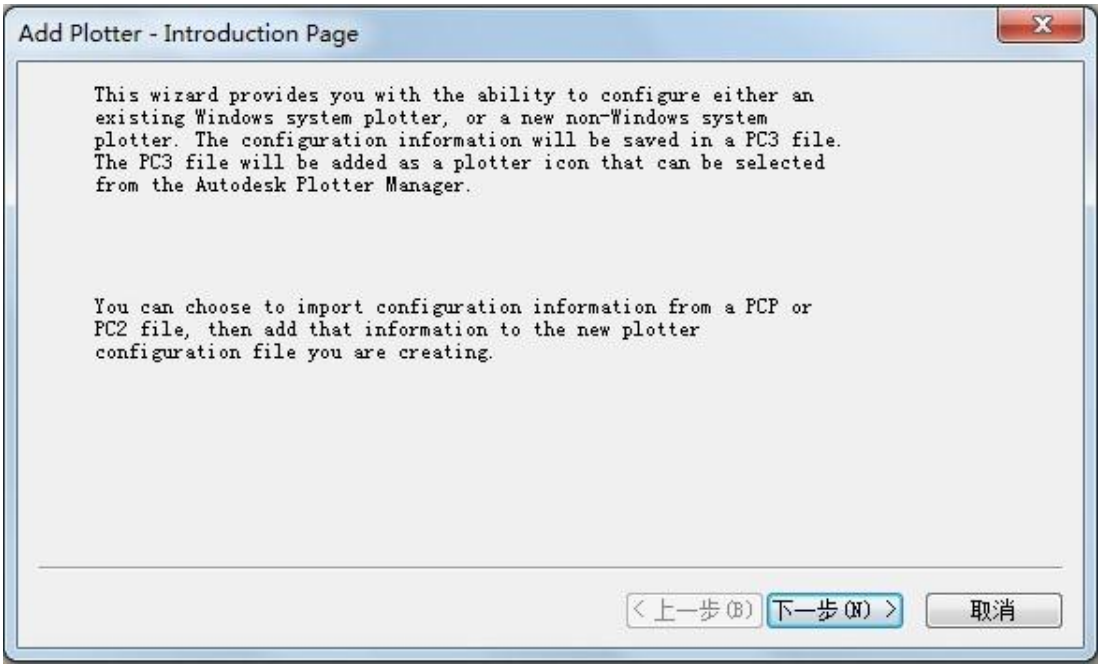
(1) Click the main menu-> "**Print**" -> "**Manage Plotters**"



(2) It will display "**Plotters**" window, double click "**Add-a-Plotter Wizard**".

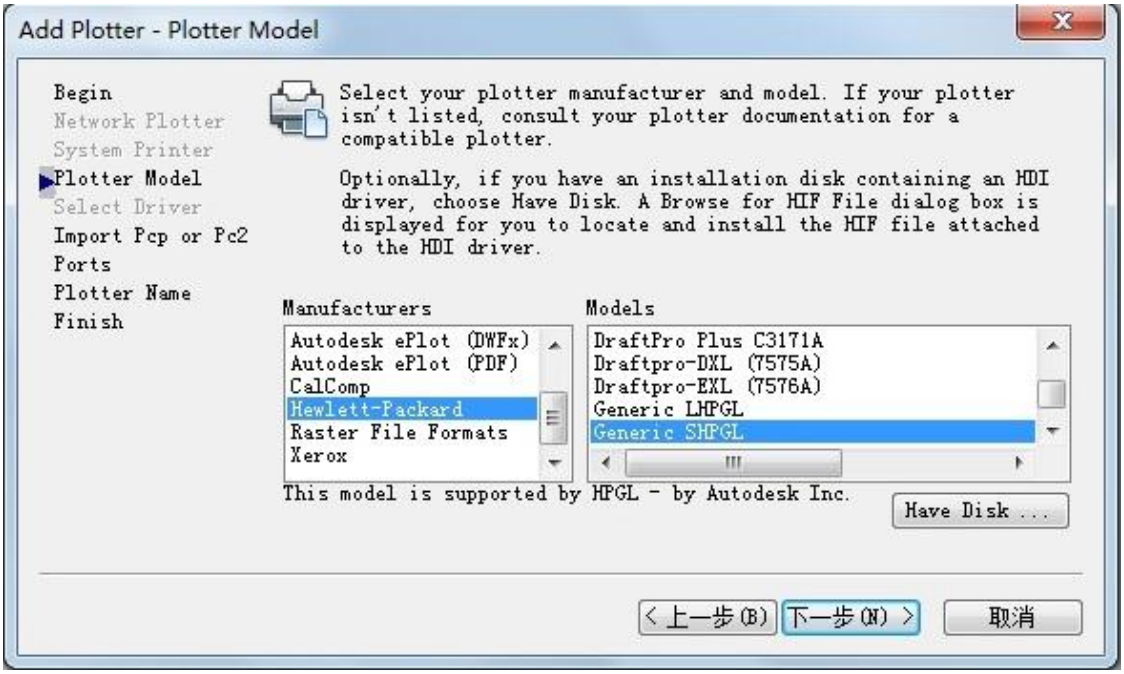


(3) It will display the following dialog box, click "**Next**".

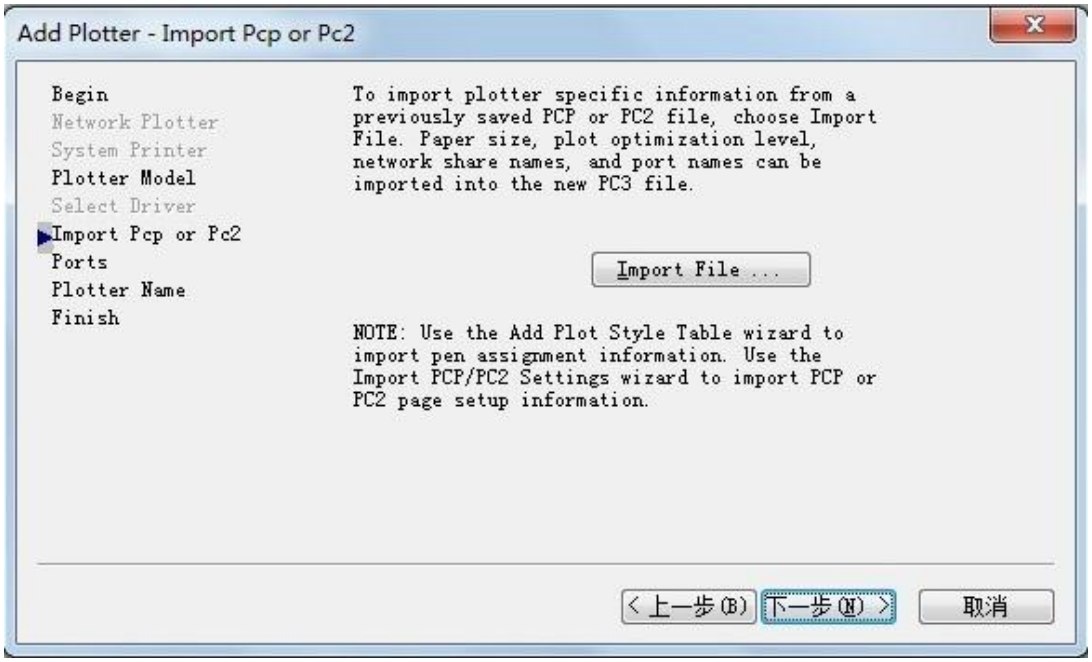


(4) Select "**My Computer**", and then click "**Next**".

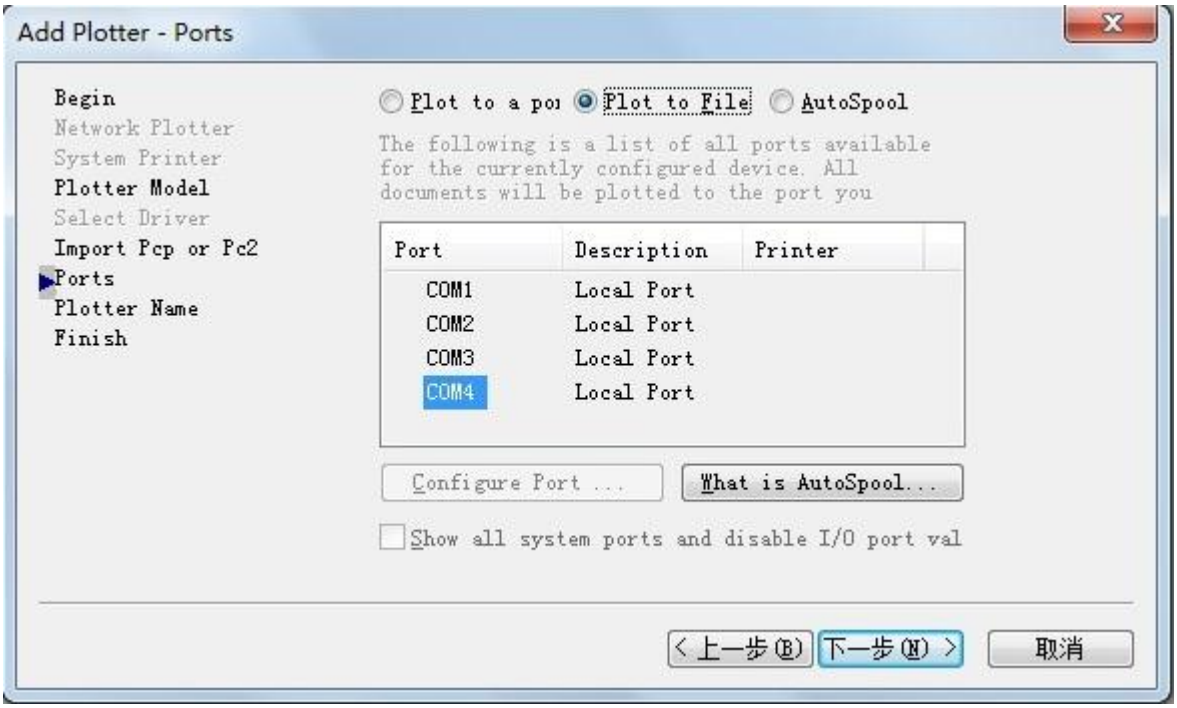
(5) Select **"Hewlett-Packard**" for Manufacturers and "**Generic SHPGL**" for Models, and then click "**Next**".



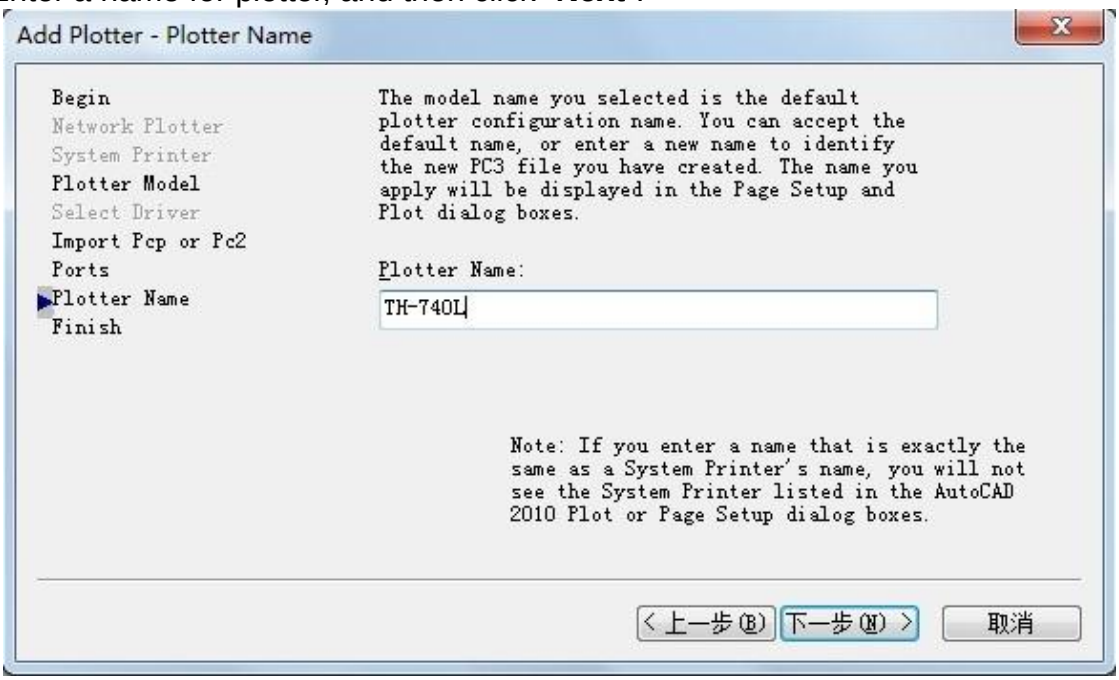
(6) Click "**Next**" in following dialog box.



(7) Select "**Plot to File**", and then click "**Next**".

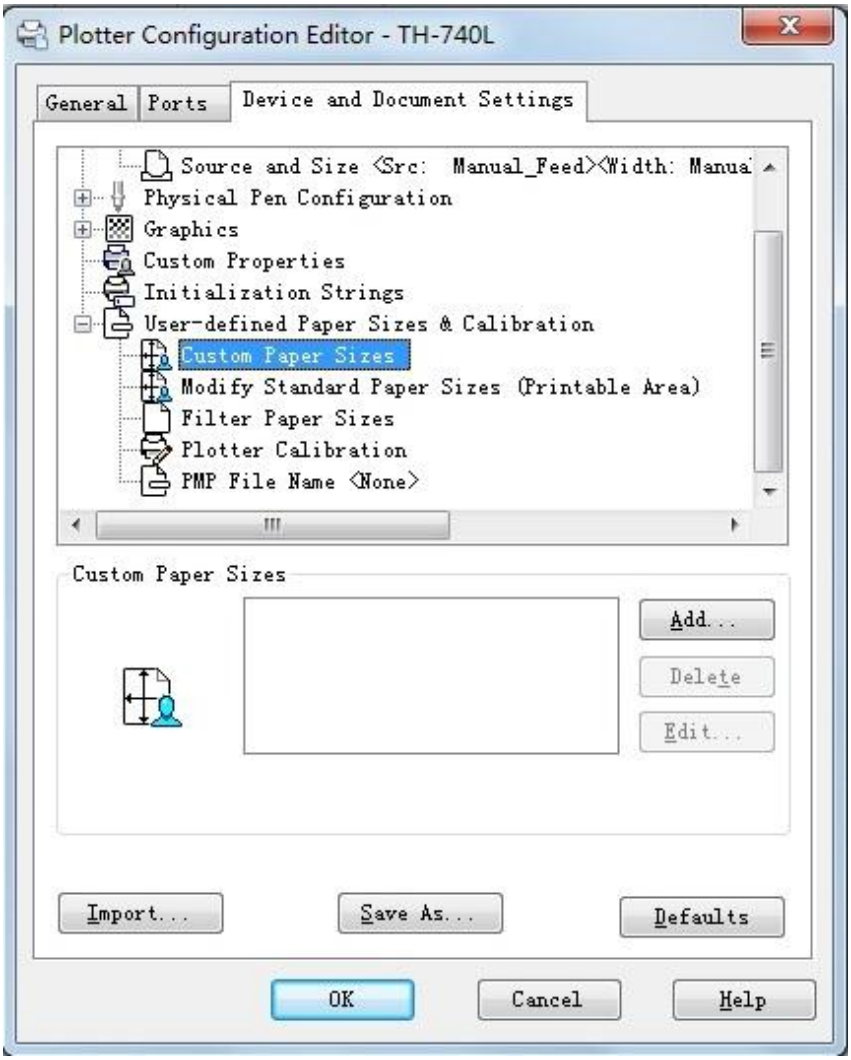


(8) Enter a name for plotter, and then click "**Next**".

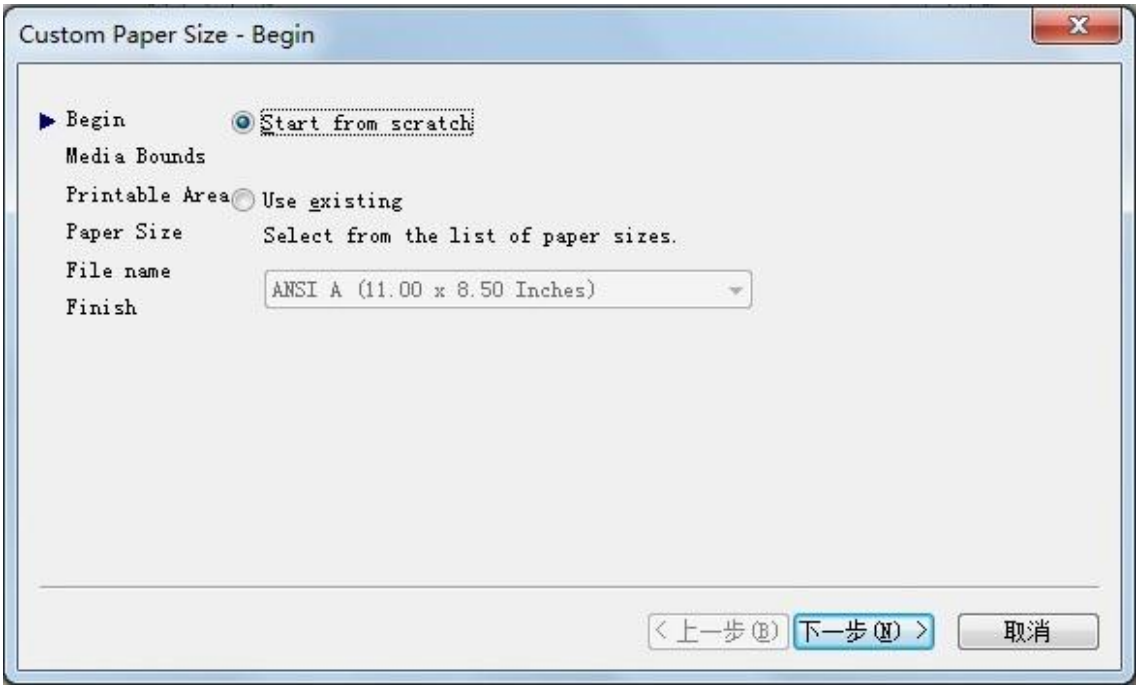


(9) Click "**Edit Plotter Configuration**" to set the parameters.

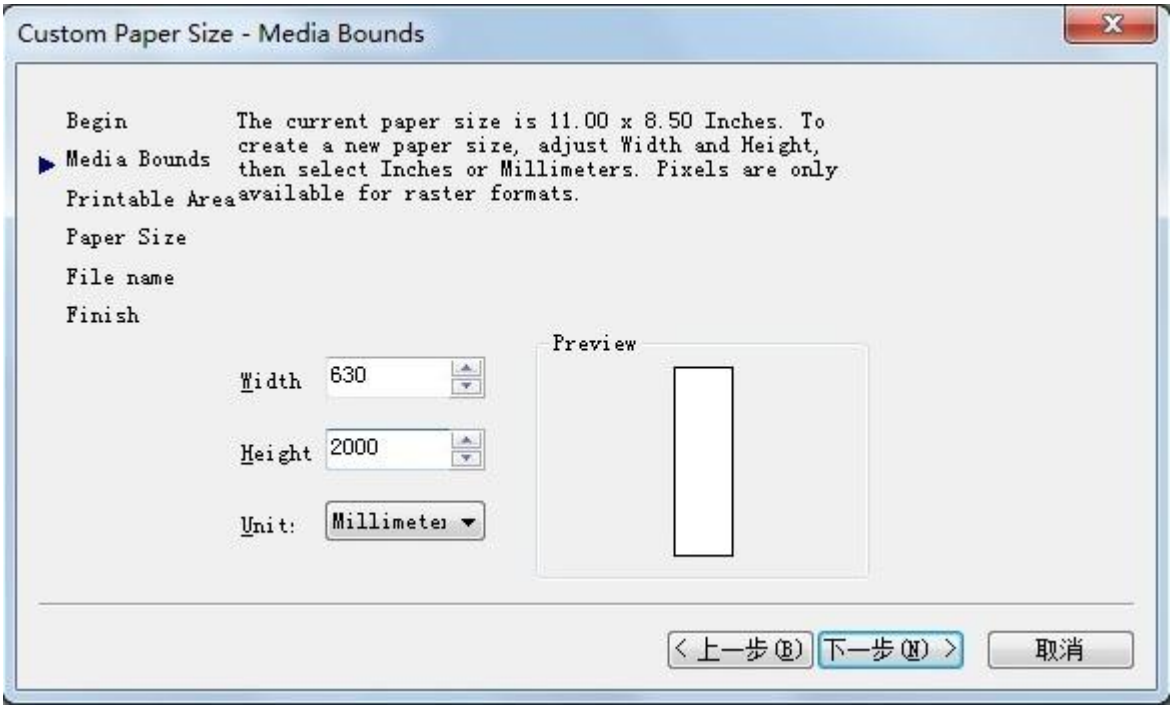
(10) Select "**Custom Paper Sizes**", and click "**Add…**".



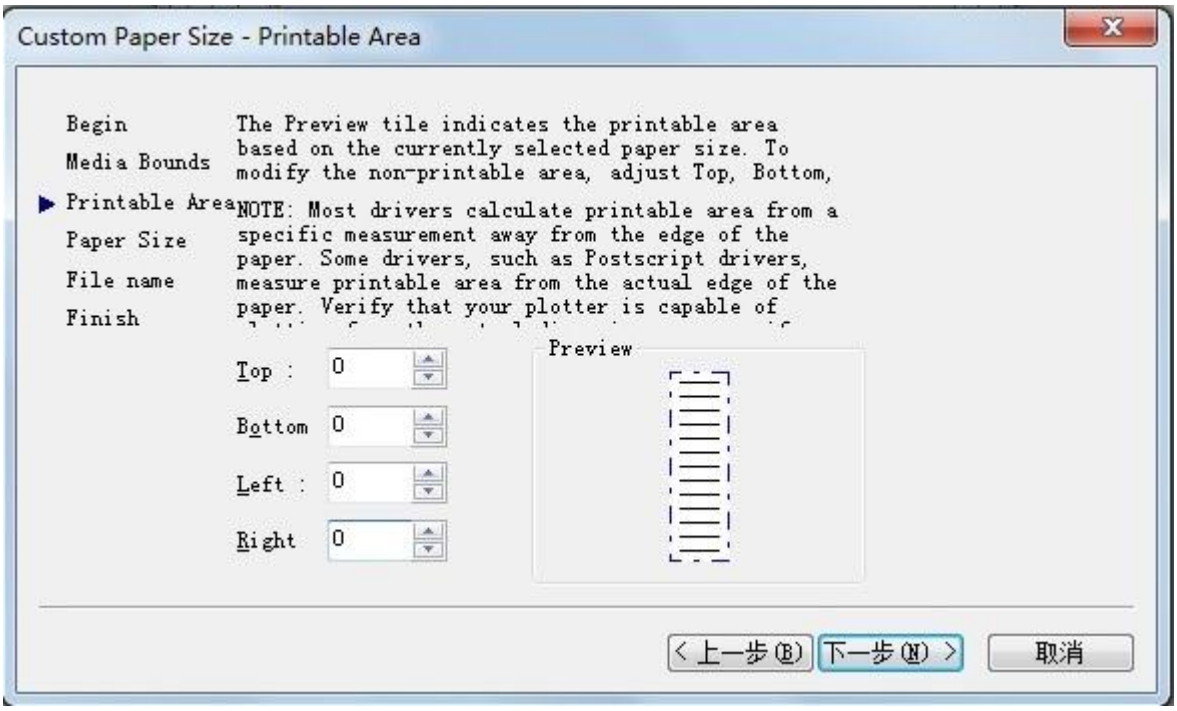
(11) Select “**Start from scratch**”, and then click “**Next**”.



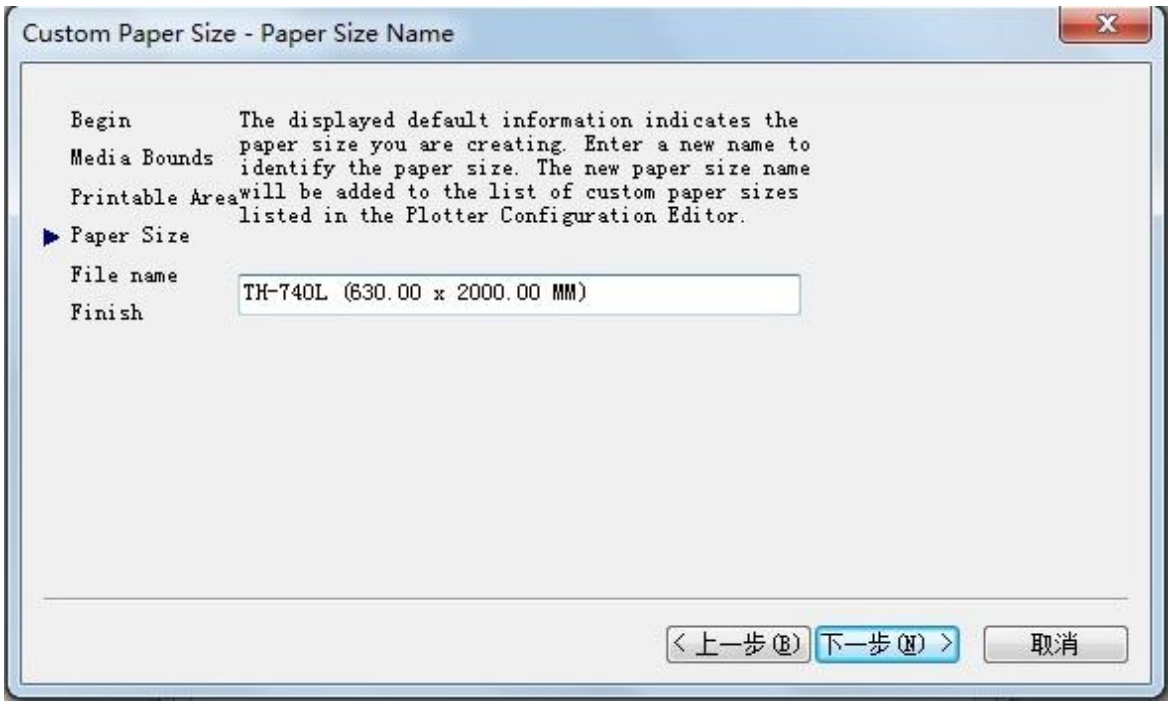
(12) Enter the appropriate value for Width and Height according to your plotter, and click “**Next**”.



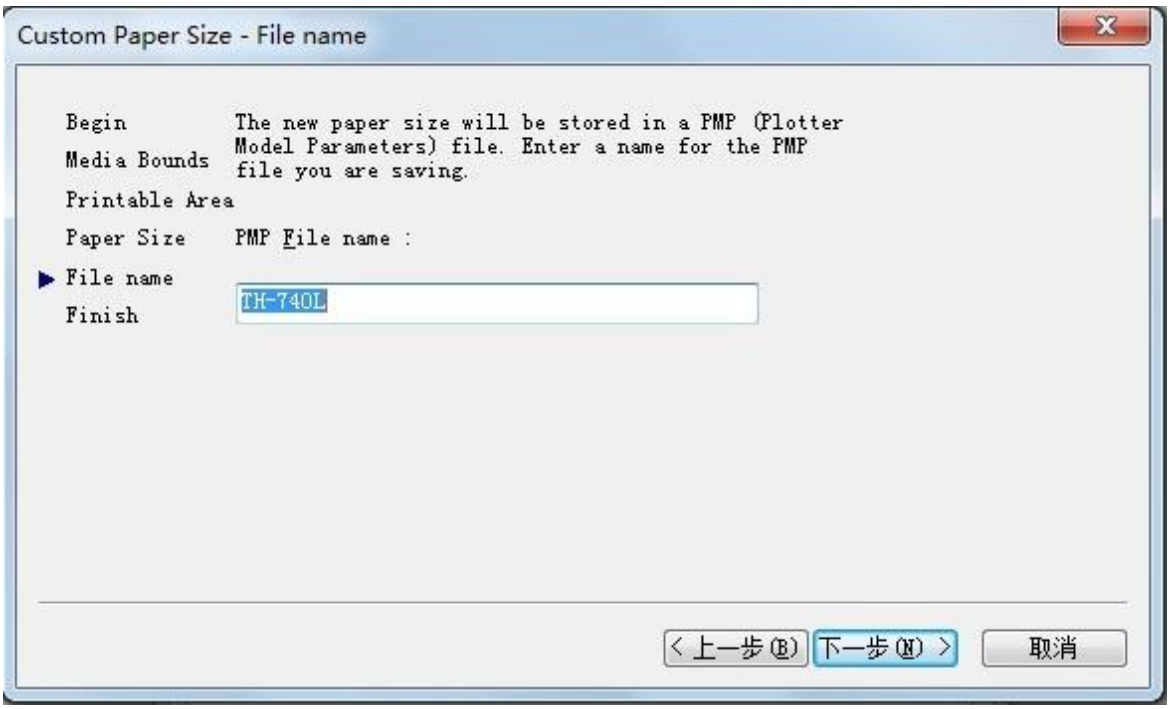
(13) Enter the value for the non-printable area, and then click “**Next**”.



(14) Enter a Paper Size Name, and then click "**Next**".



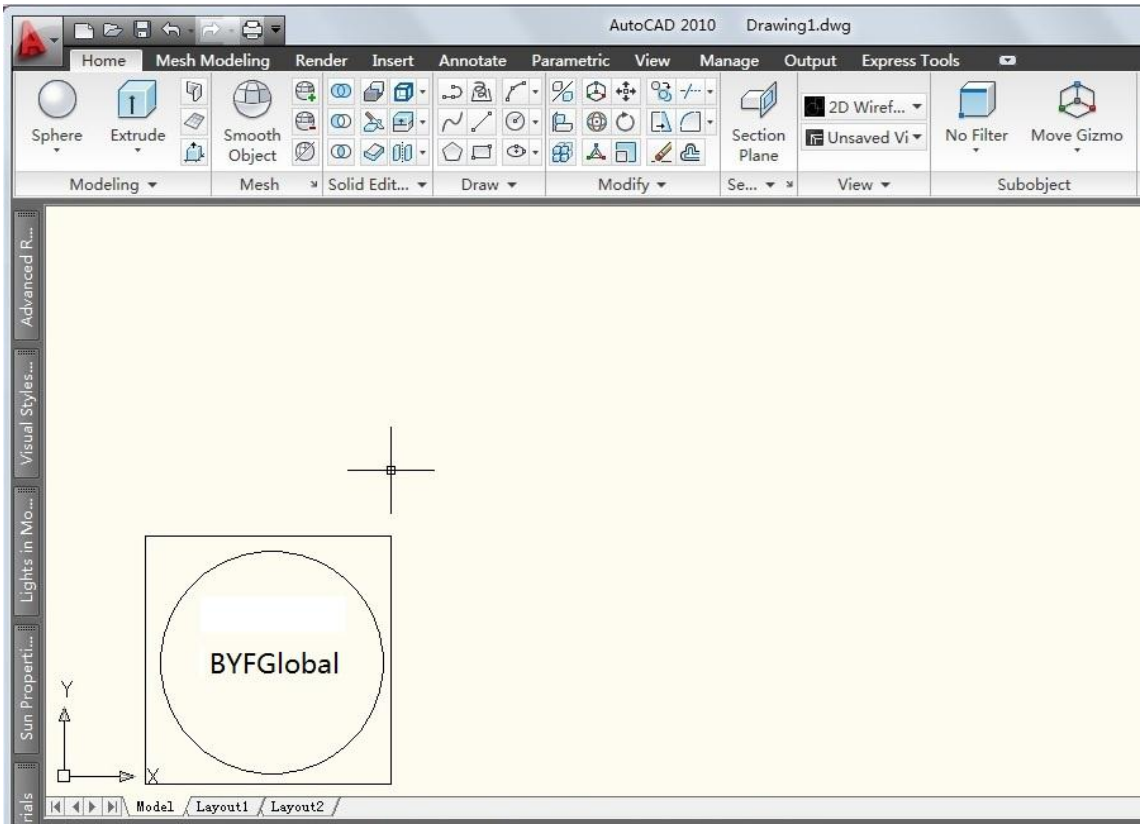
(15) Enter a PMP File Name, and then click "**Next**".



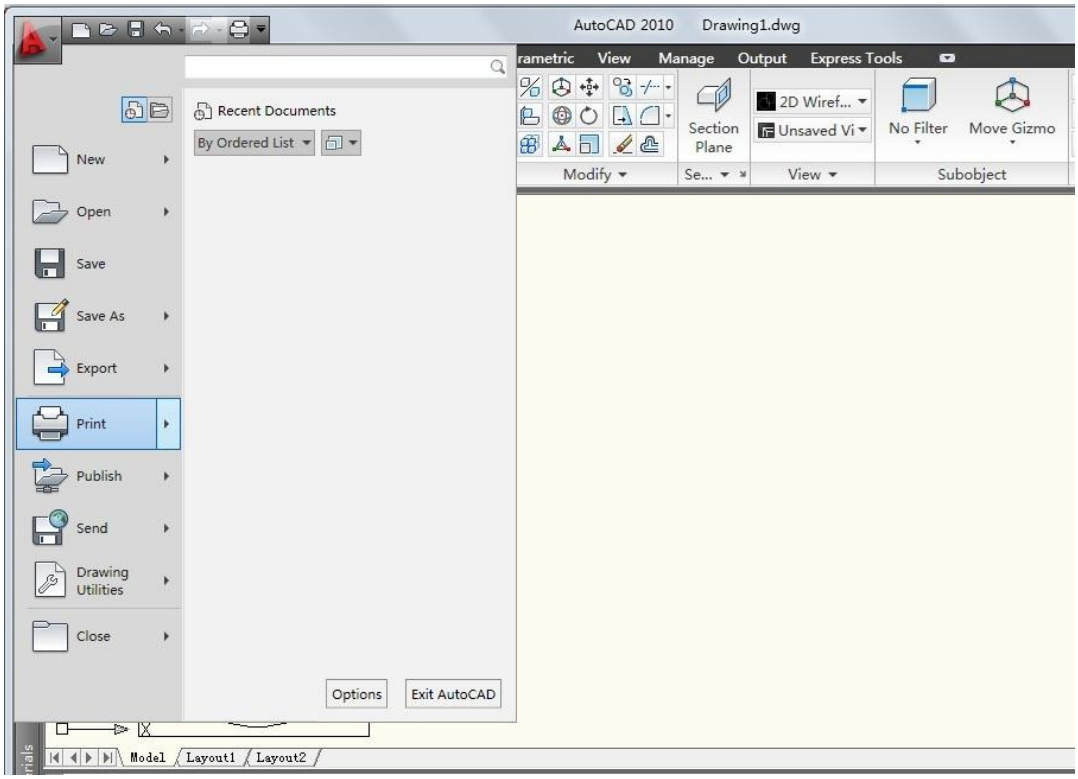
(16) Click "**Finish**".

5.4.2 How to output

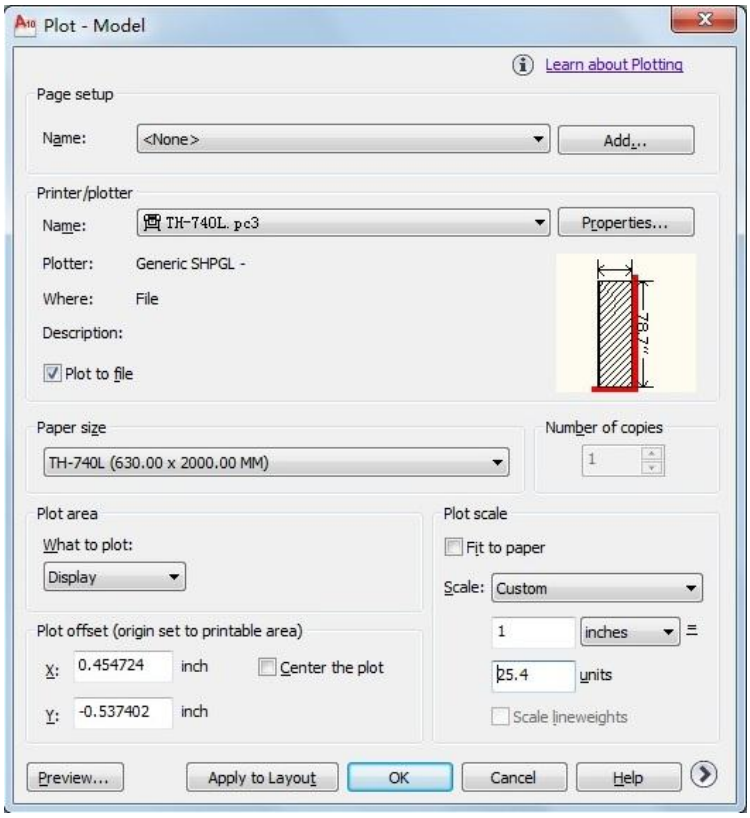
(1) Finish the file that you want to output.



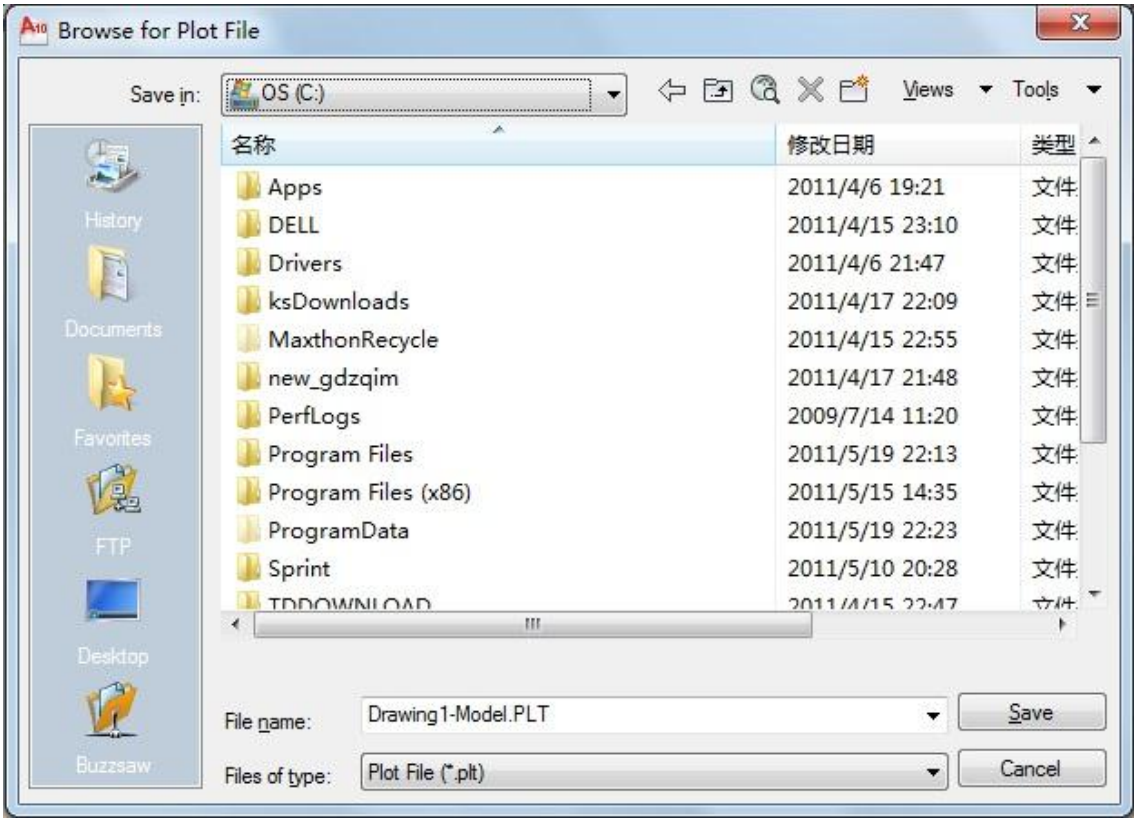
(2) Click main menu -> "**Print**".



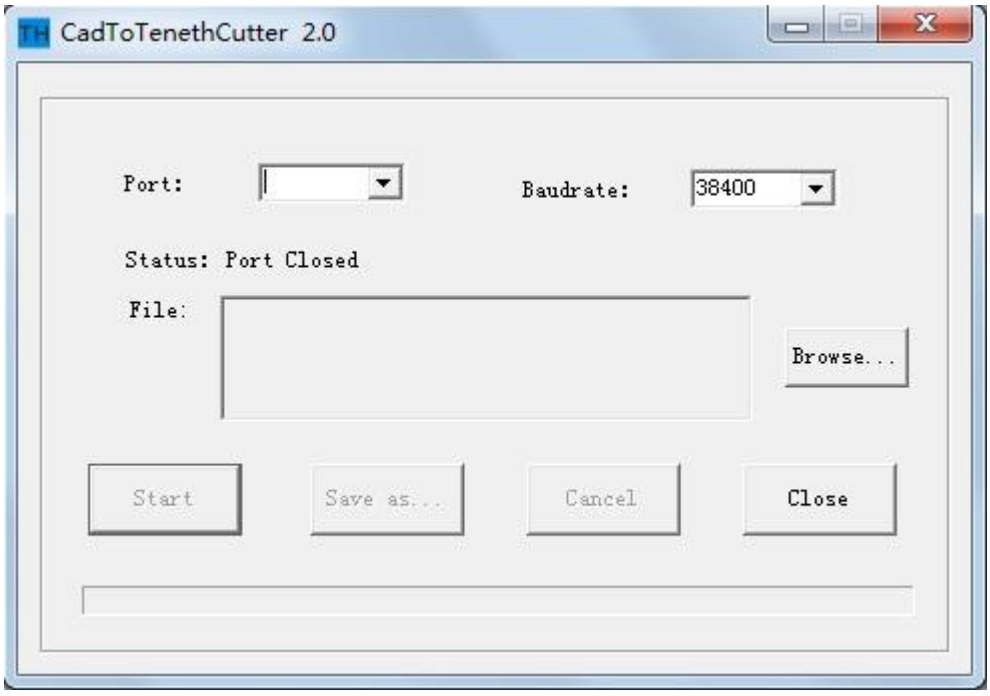
(3) Select the plotter and paper size that you just set (See P32-5.4.1), and select "**Plot to file**" checkbox and **"Custom**" for Scale. Then click "**Preview**", If It can't plot normally, please modify the settings, and finally click "**OK**".



(4) Select the location that you want to store and enter a name for the file, then click "**Save**".

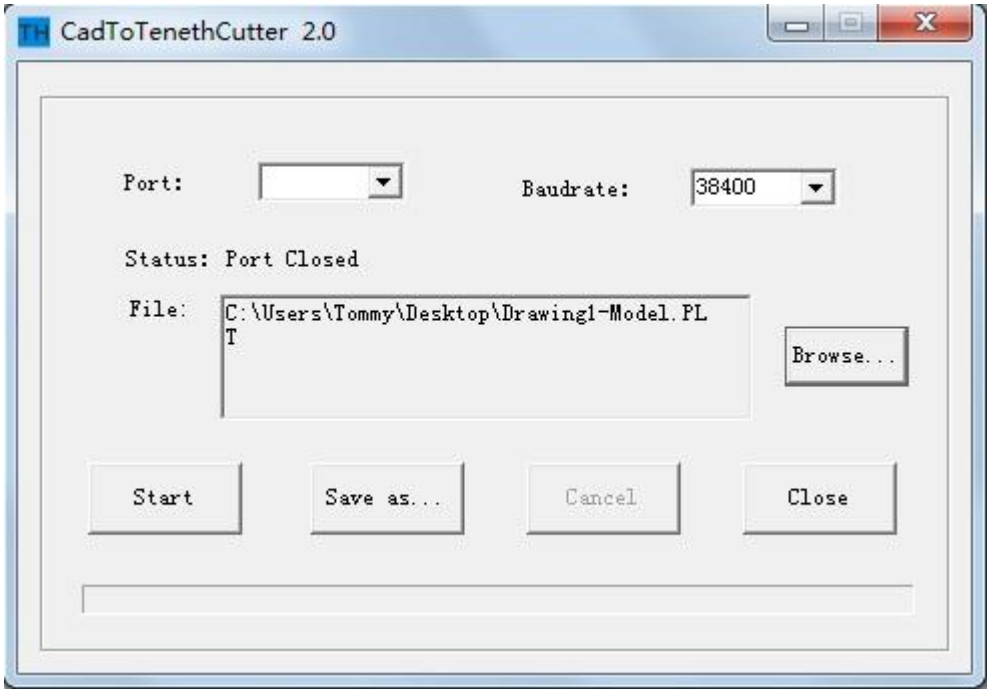


(5) Run the AutoCAD output software in Resource CD



(6) Select the appropriate Port and Baud rate,

(7) Click "**Browse…**" to locate the .plt file you just saved.



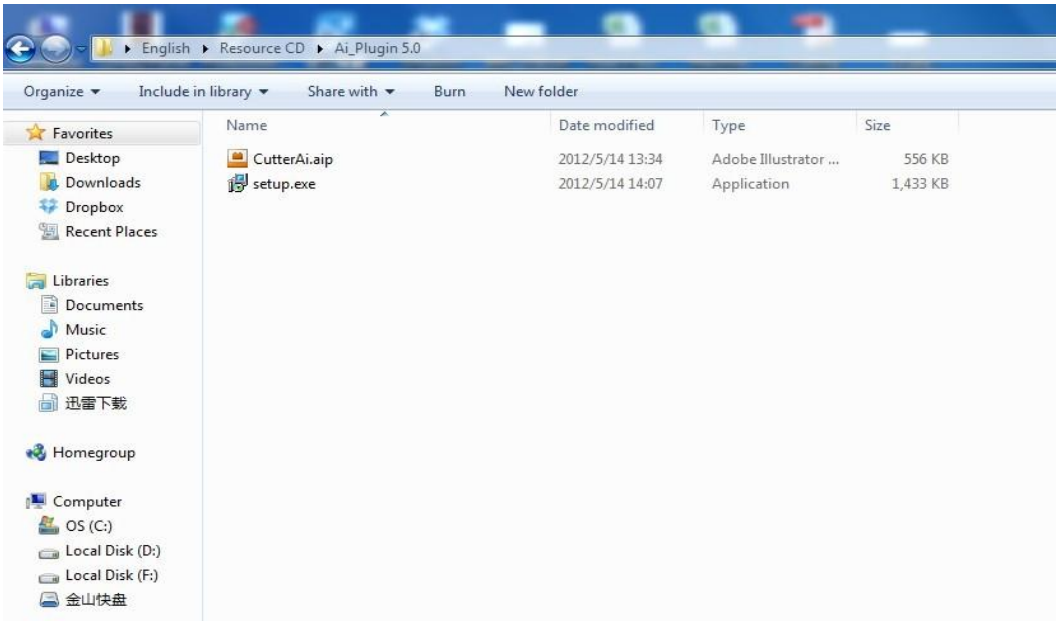
(8) Click “Start” to do the task or click “Save as…” to save the file to a SD card or U disk.

5.5 Output from Adobe Illustrator

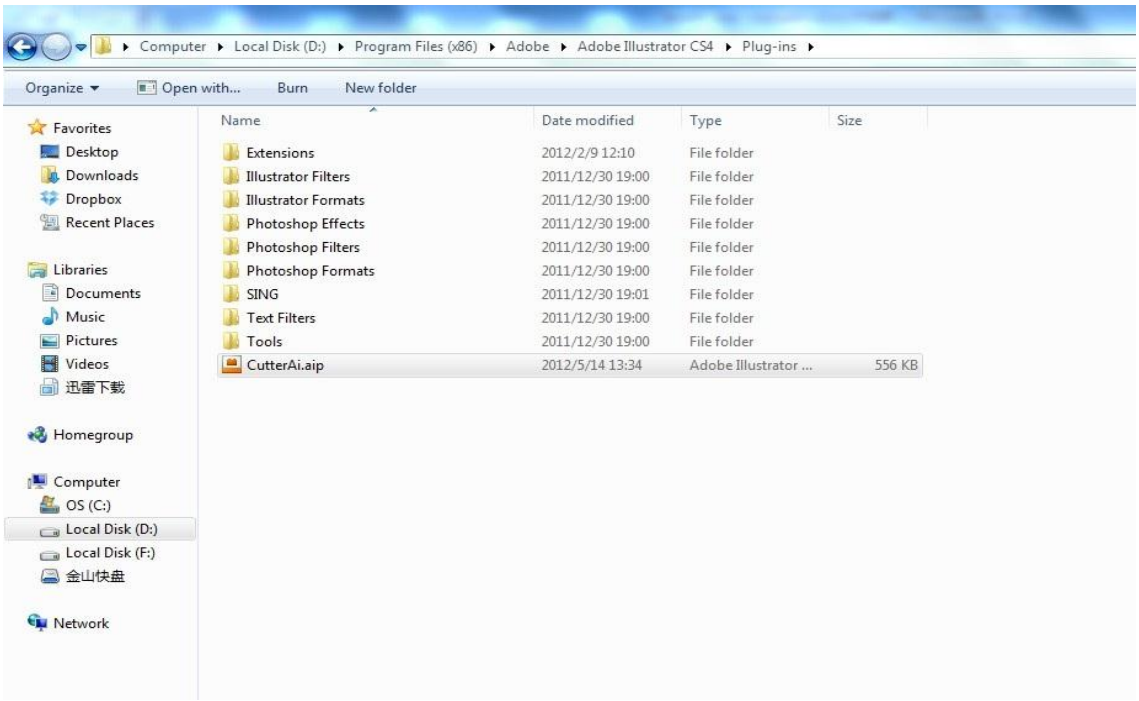
NOTE: This Plugin only support Adobe Illustrator CS4 or above version.

5.5.1 Install the plugin

(1) Find **Ai_Plugin 5.0** folder in CD:

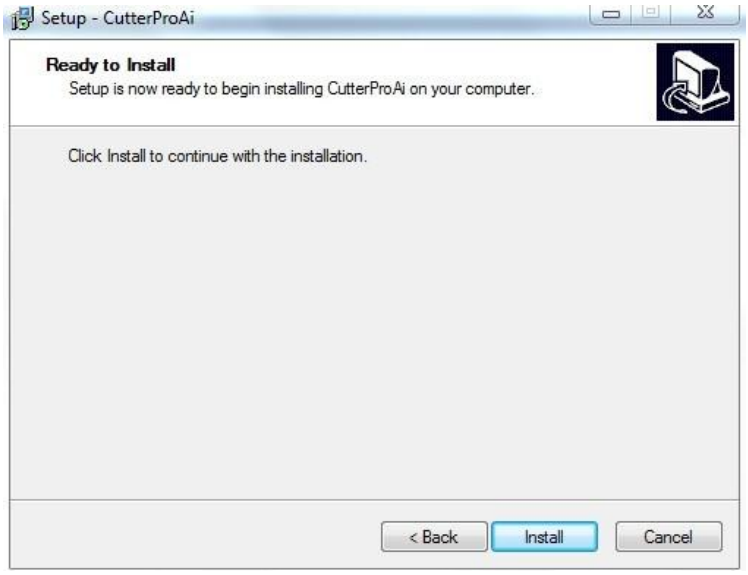


(2) Find the “CutterAi.aip” in **Ai_Plugin 5.0** folder, and copy it to “**plug-ins**” of Adobe Illustrator CS4 by following the path：“**Program Files**” -> “**Adobe**” -> “**Adobe Illustrator CS4**” -> “**Plug-ins**”:



Double click “setup.exe” file

Click “Next”.

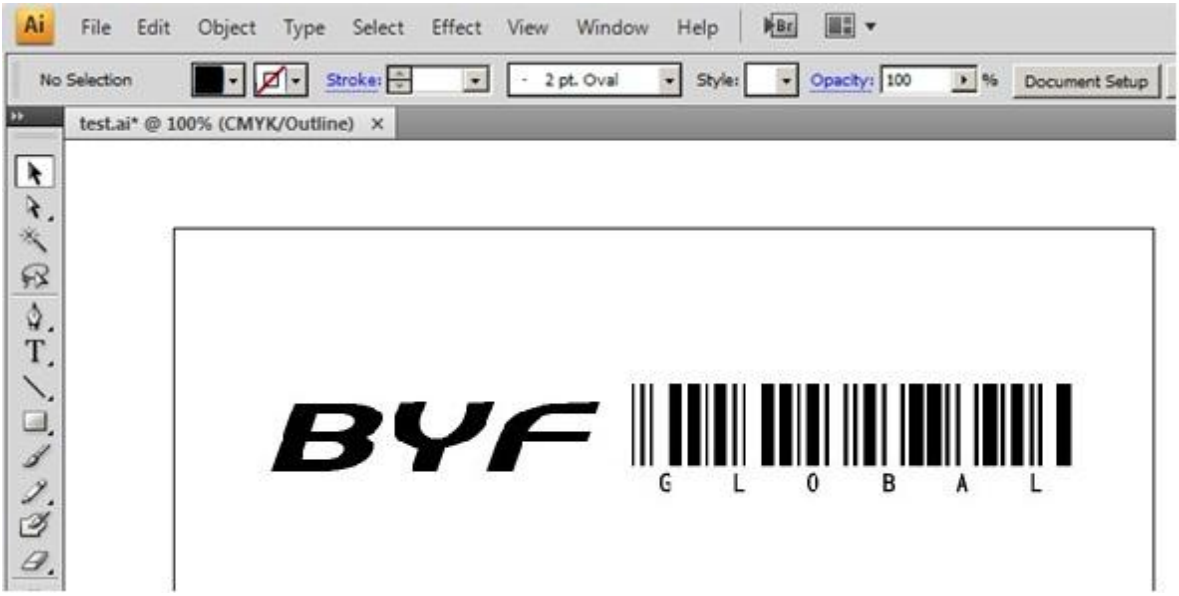


Click “Install”.

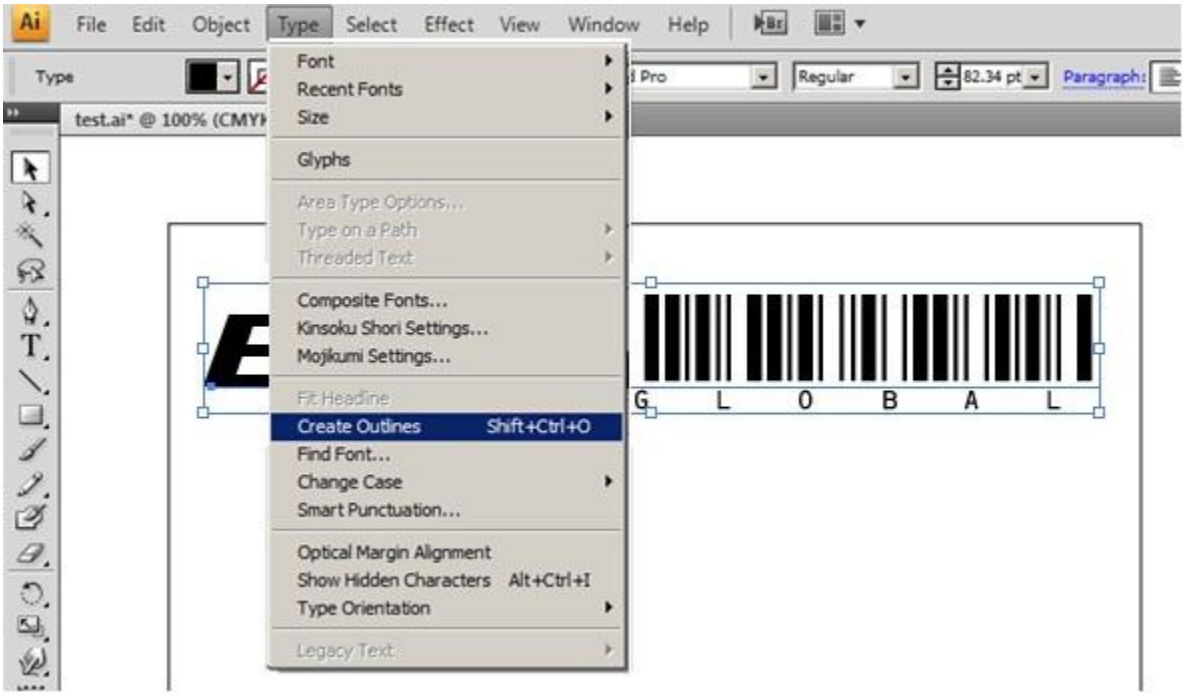
Click “Finish” to finish the installation.

5.5.2 How to use

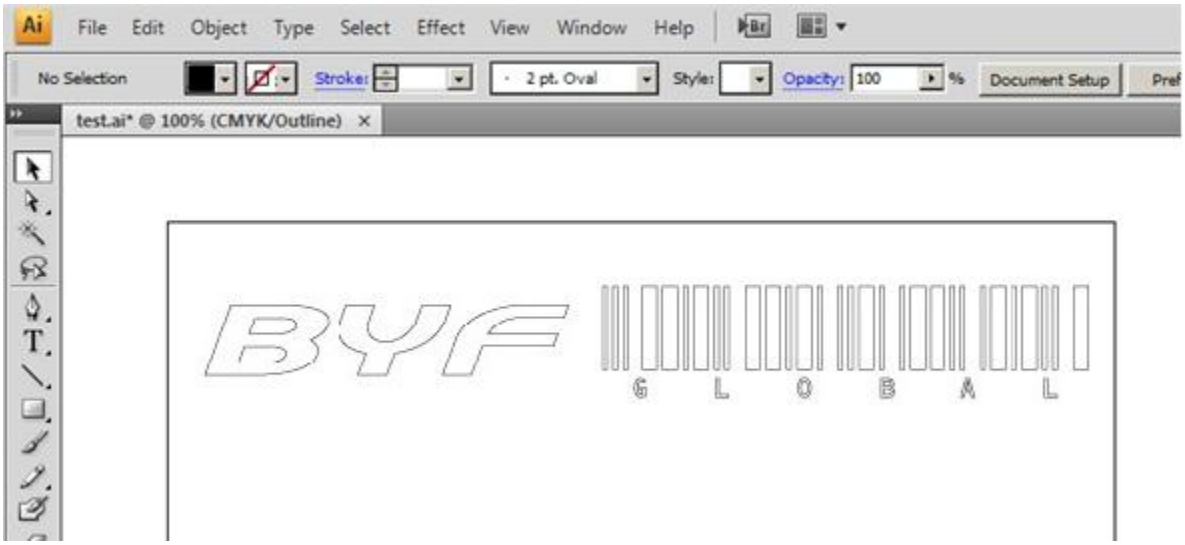
(1) Finish a file as below:



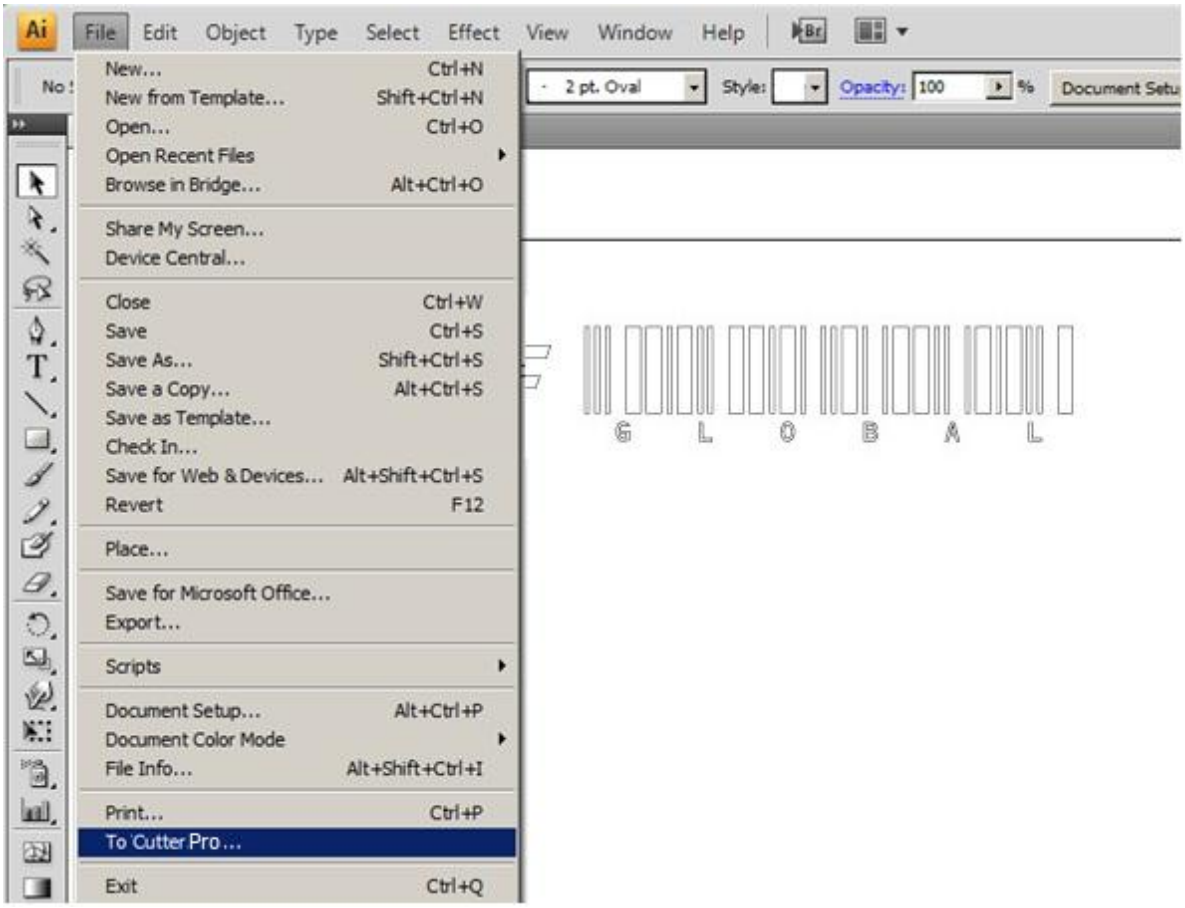
(2) Select the text，and click “**Type**”-> “**Create Outlines**”:



It will show as below:



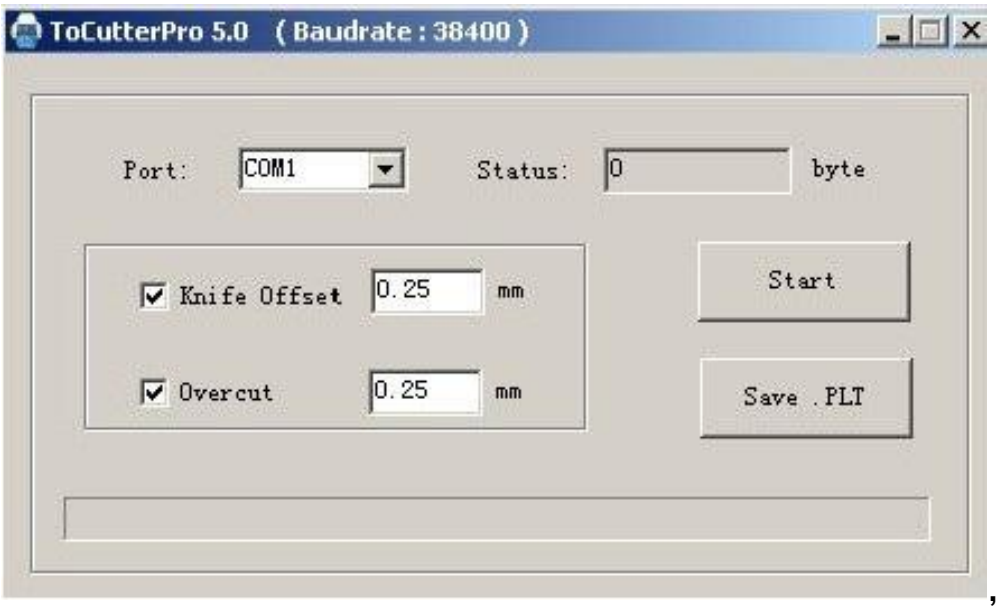
(3) Click "**File**"-> "**To Teneth Cutter…**":



Then it will pop up a Progress dialog box:

,

After that it will display output dialog box



,

(4) Select the appropriate port and baudrate upon the plotter connected and set the value for the **Sharp Angle** and **Close**. Then click "**Start**" to do the task.

NOTE: You can also click "**Save .Plt**" to save the file to the computer, or copy it to a SD card or U disk for using on the plotter offline.

5.6 Cut 5mm or smaller letters

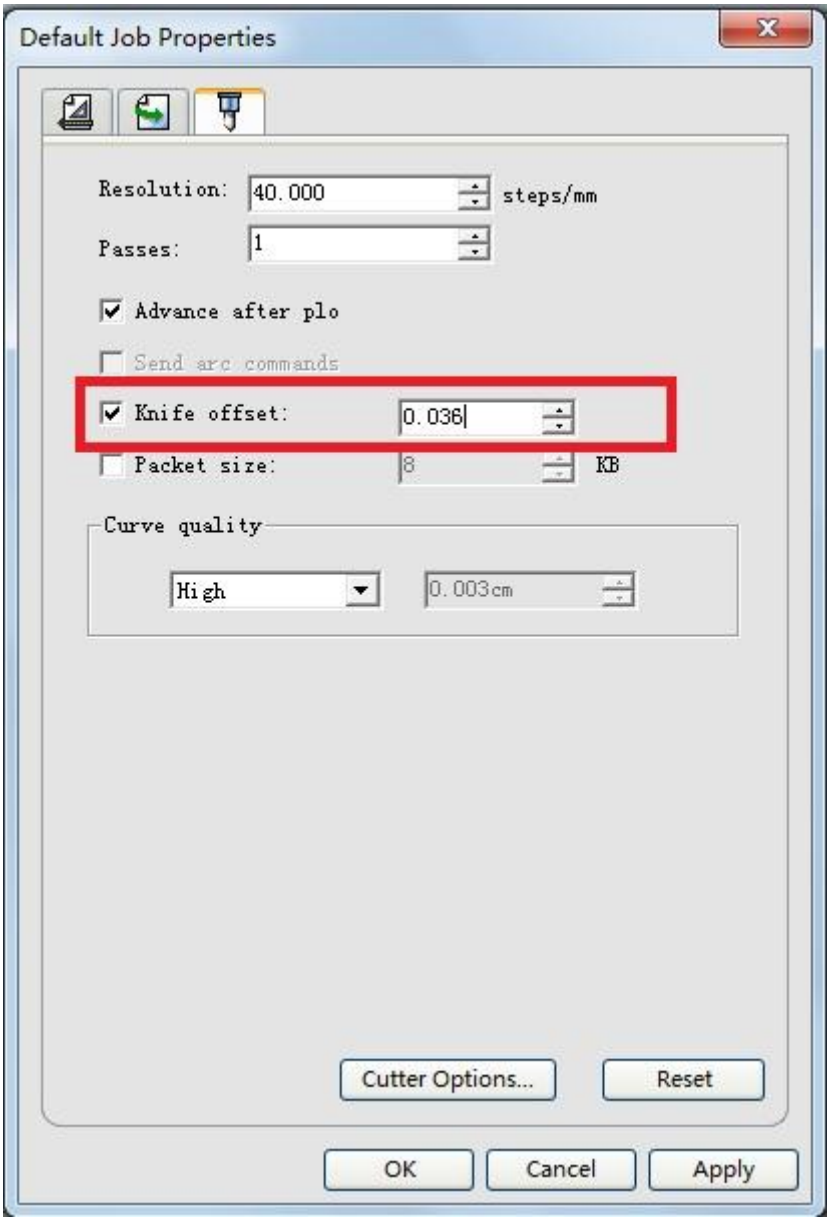
To achieve the best quality output, we suggest you use a narrow sheet. If use wide sheet, you should:

(1) Position two pinch rollers as close as possible to both edges of the cutting area.

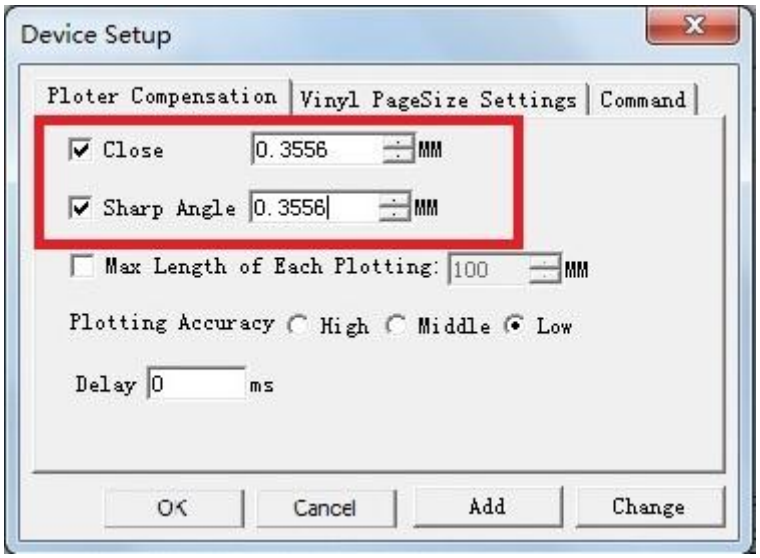
(2) Make sure the loaded sheet is placed the flat with equal tension.

(3) Set parameters as below:

① In **Flexi**:


Default Job Properties
Resolution: 40.000 steps/mm
Passes: 1
Advance after plo
Send arc commands
Knife offset: 0.036
Packet size: 8 KB
Curve quality
High
0.003cm
Cutter Options...
Reset
OK
Cancel
Apply

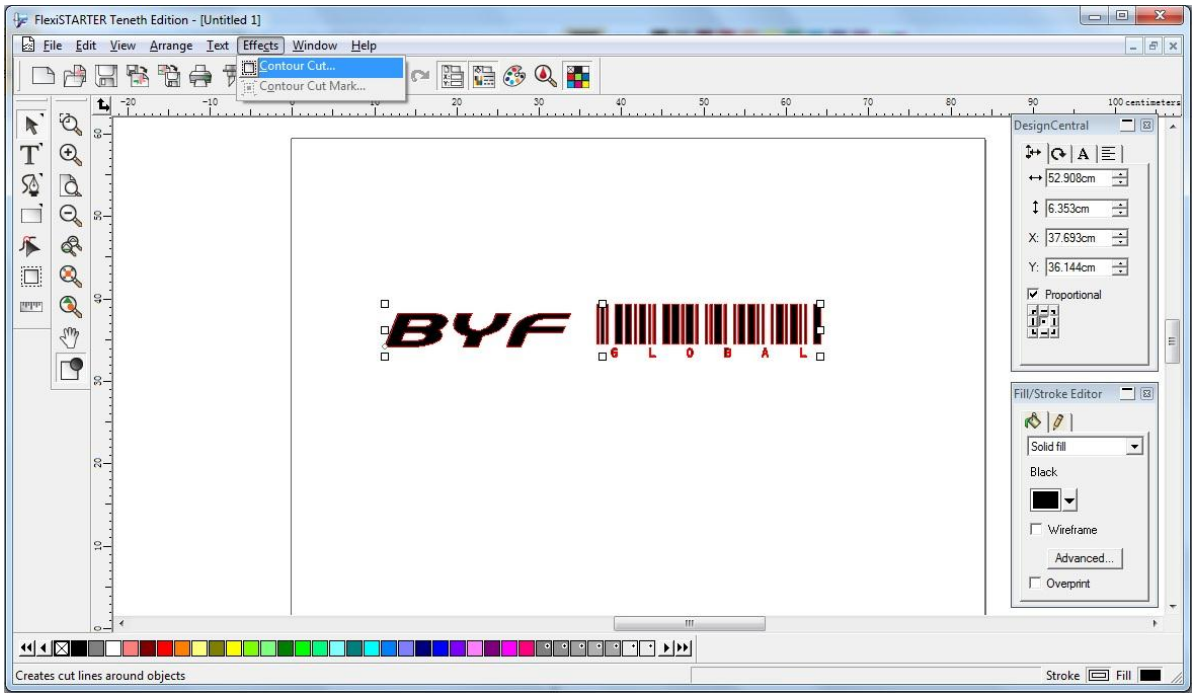
② In **ARTCUT**:



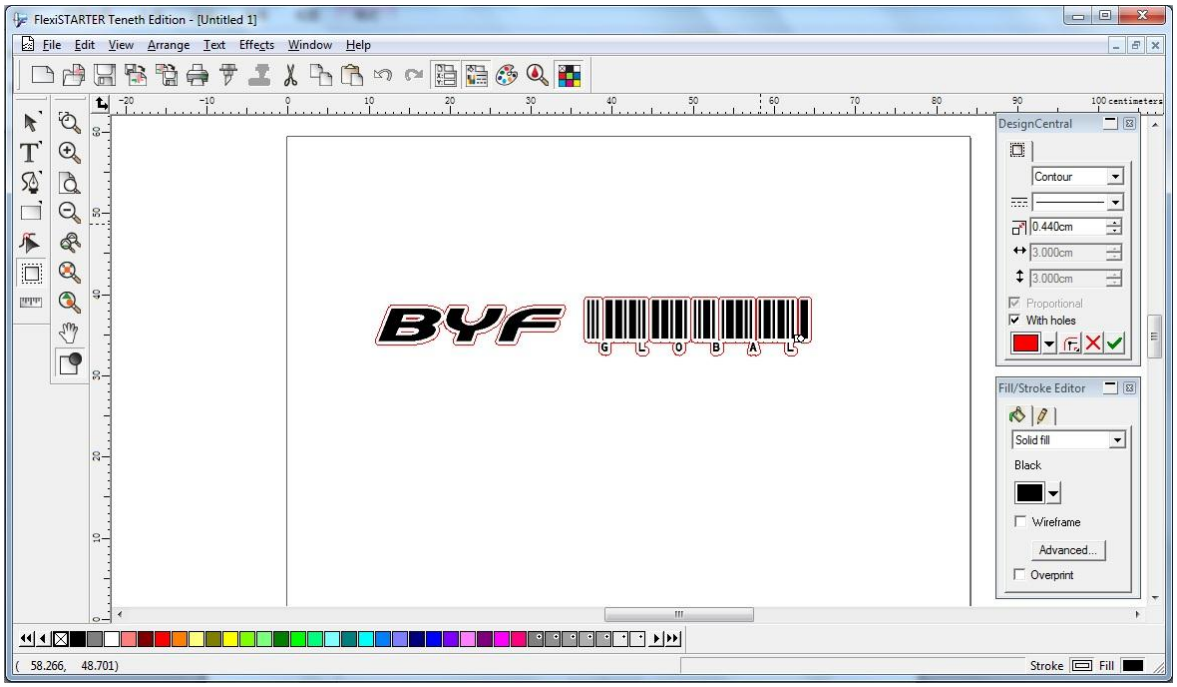
5.7 Contour Cut (optional)

(1) If you are the first time to use this function, you should set the distance between red dot and pen firstly (see P17-4.5).

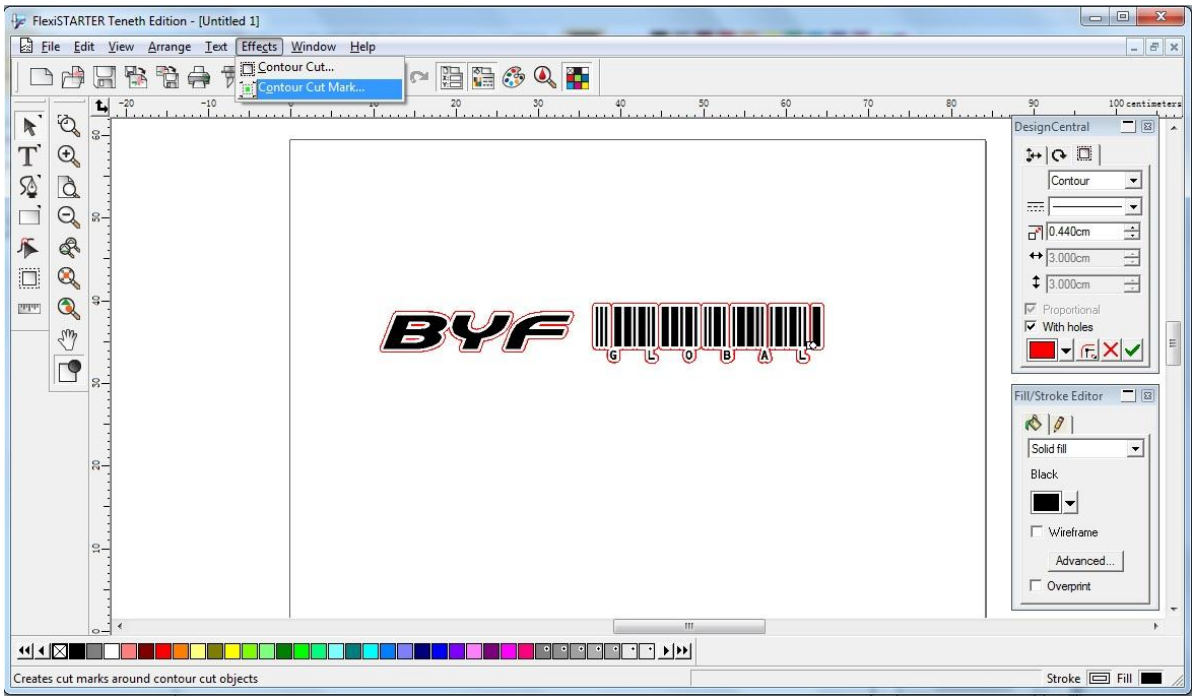
(2) Create or open a graphic file in Flexi, and click **“Effects”->”Contour Cut…”** to create a contour.



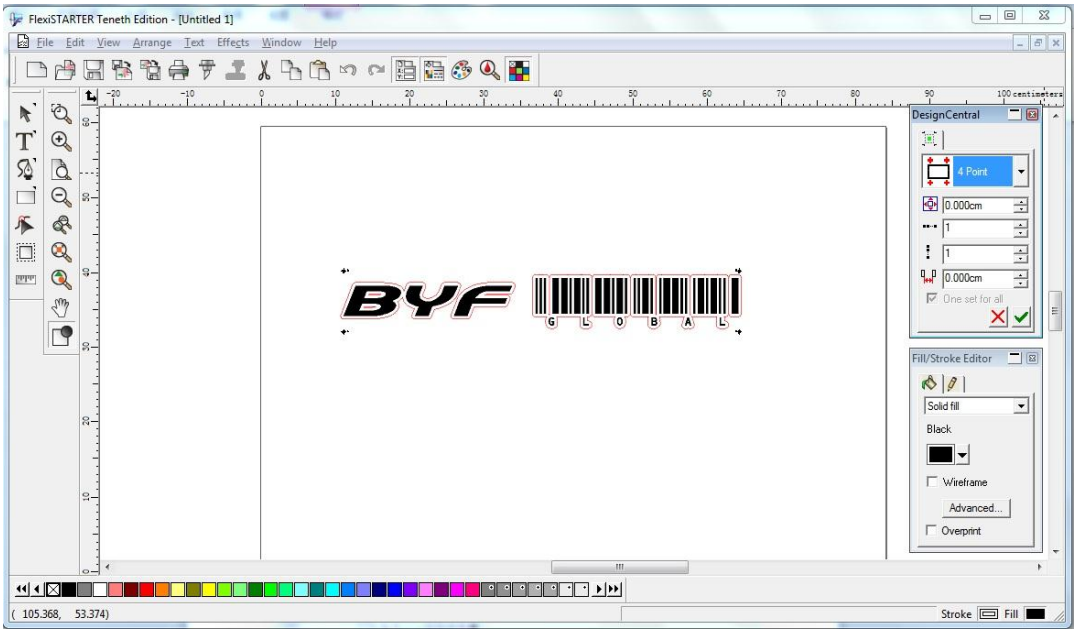
(3) You can adjust related parameters in “**DesignCentral**” pop-up window, and then click



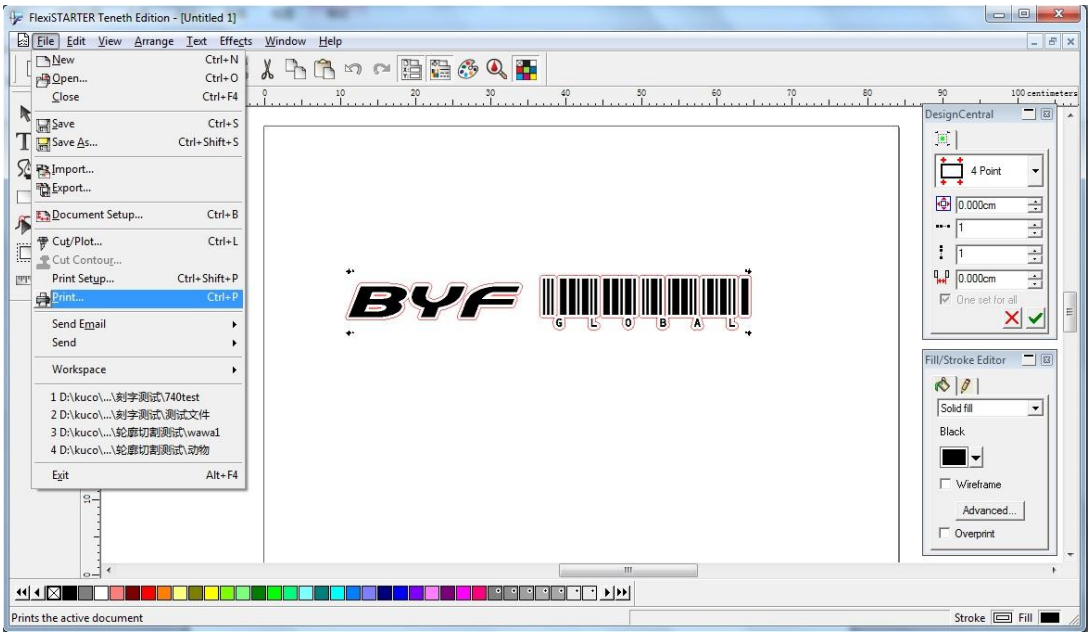
(4) Click "**Effects**"->"**Contour Cut Mark…**" to add a contour cut mark for the graphic file.



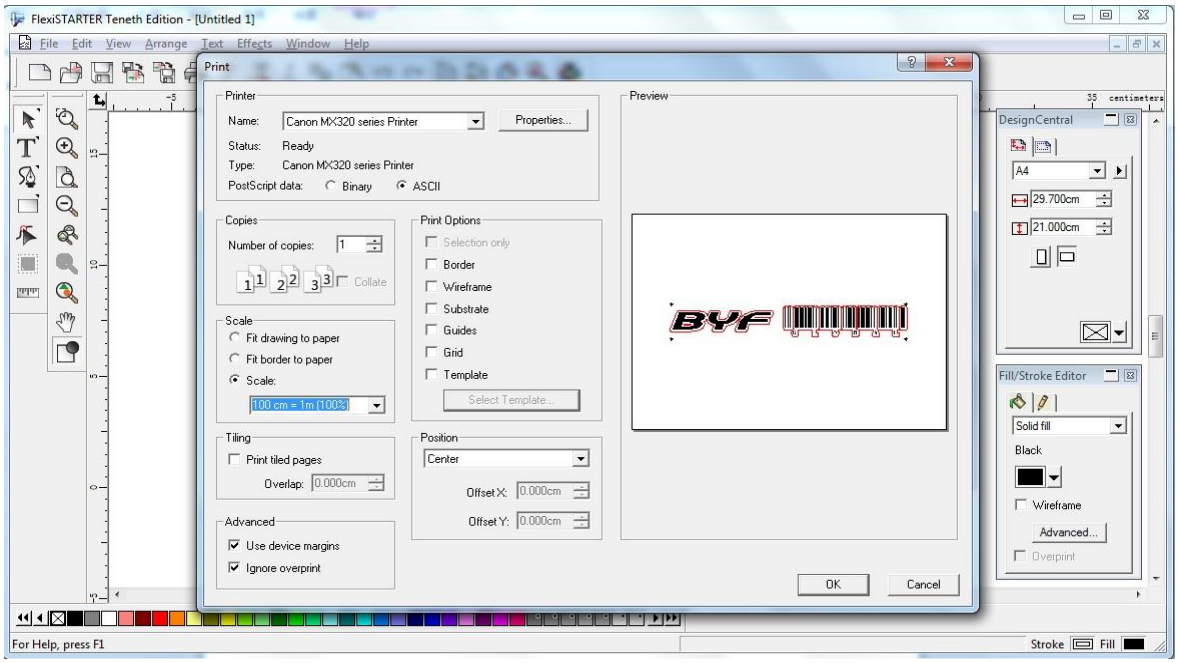
(5) Select "**4 Point**" in "**DesignCentral**" pop-up window, and then click .



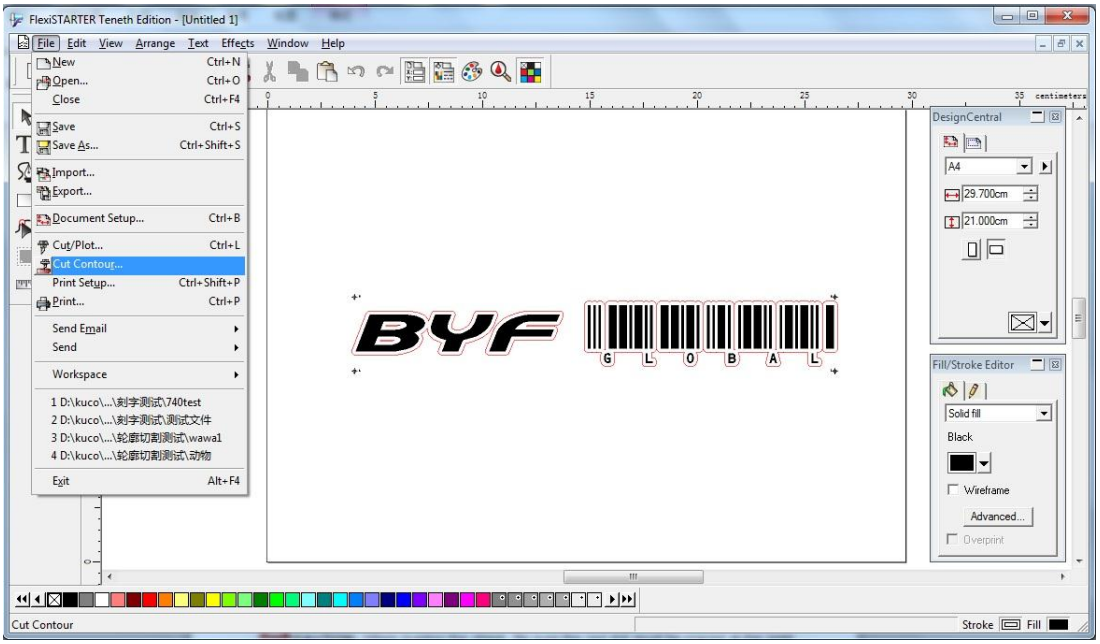
(6) Click file "**File**" -> "**Print**" to print the graphic file.



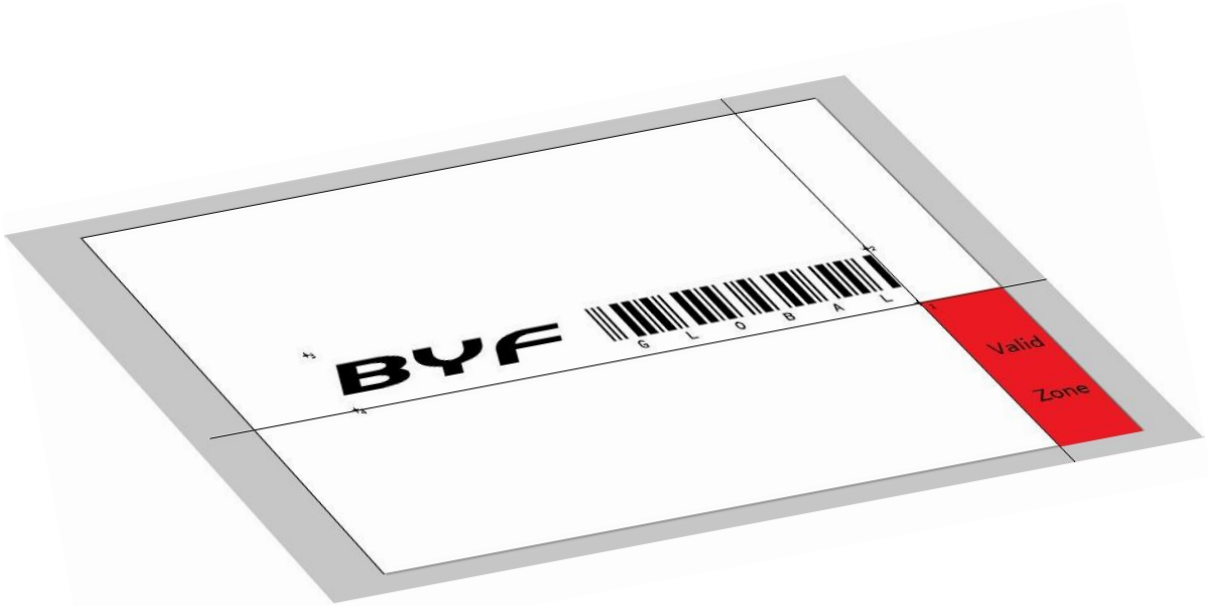
(7) In the "**Print**" window, there are some print options for your choice (e.g., if you want to print original size, just select "100cm = 1m [100%]")



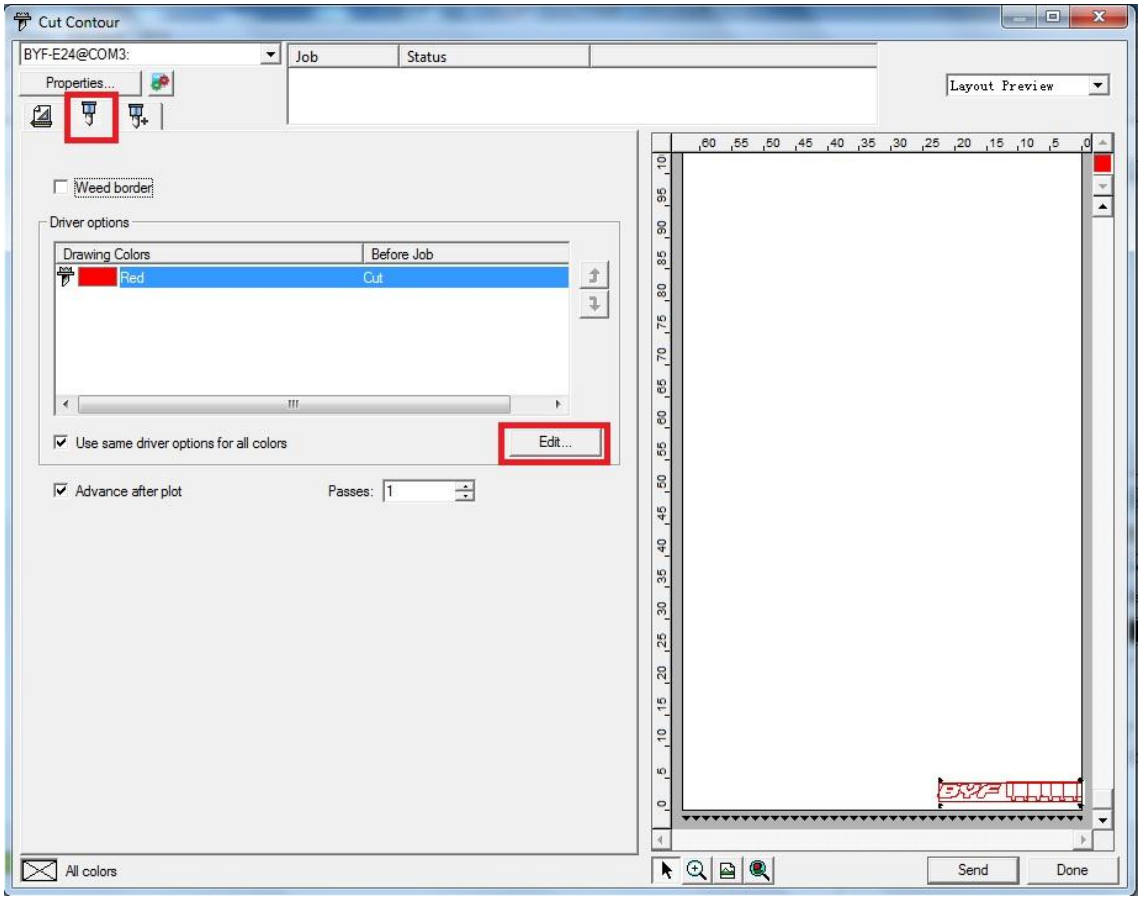
(8) Load the printed sheet on the plotter, and click file "**File**" -> "**Cut Contour…**"



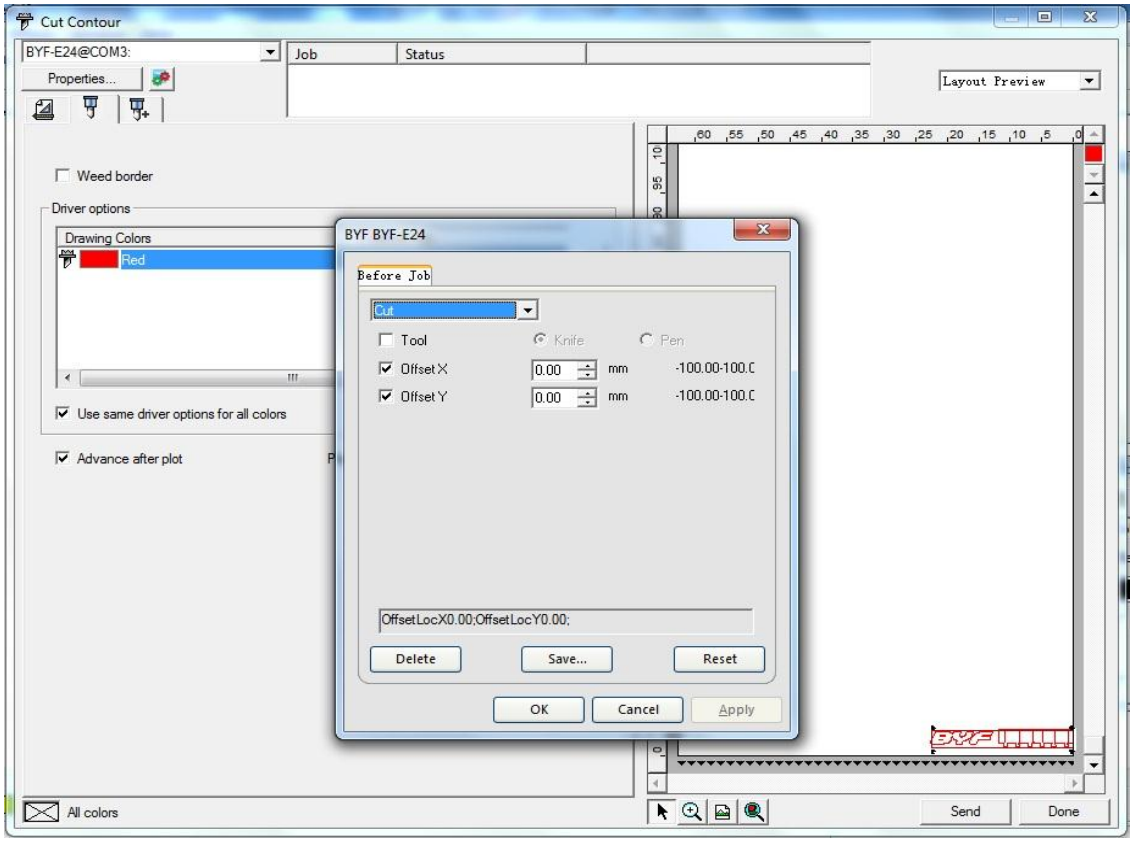
CAUTION: When loading the sheet, Be sure the red dot must be placed at the right side of first point, otherwise the plotter will not work normally, the **valid zone** is as shown below:



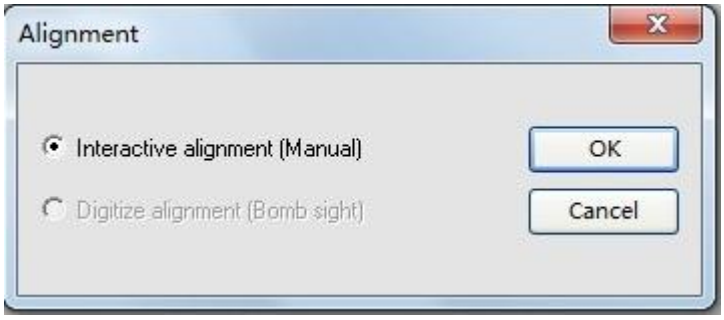
(9) In “**Cut Contour**” window, select your plotter model, and click “**Options**” tab -> “**Edit…**” button.



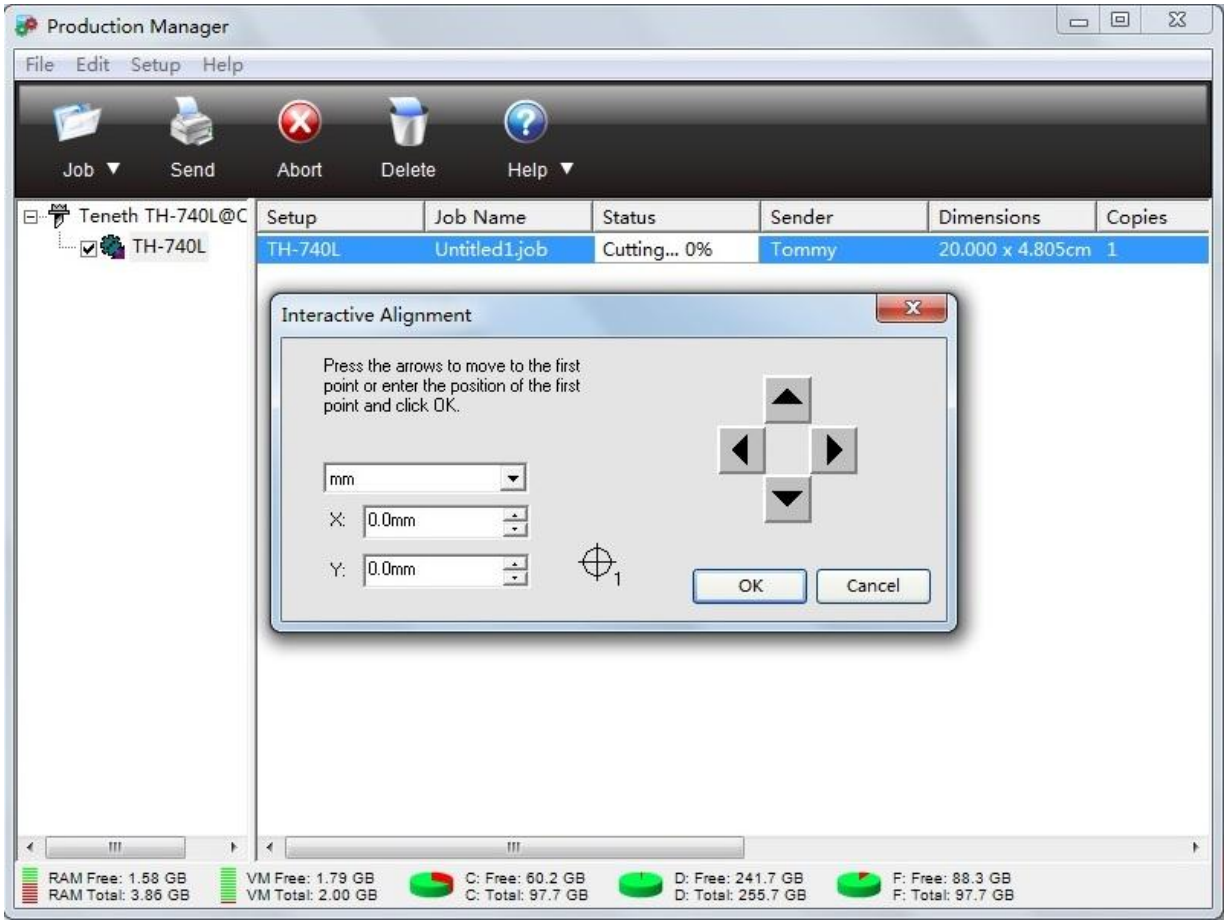
(10) It will pop up a dialog box, please set the parameters **Offset X 0.00mm, Offset Y 0.00mm** as below, and click “Apply”-> “OK”.



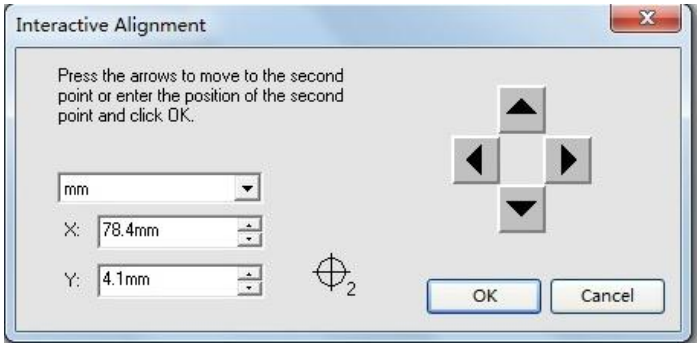
(11) Then click "**Send**", It will pop up a "**Alignment**" dialog box in "**Production Manager**" window, select "**Interactive alignment (Manual)**",and click "**OK**".



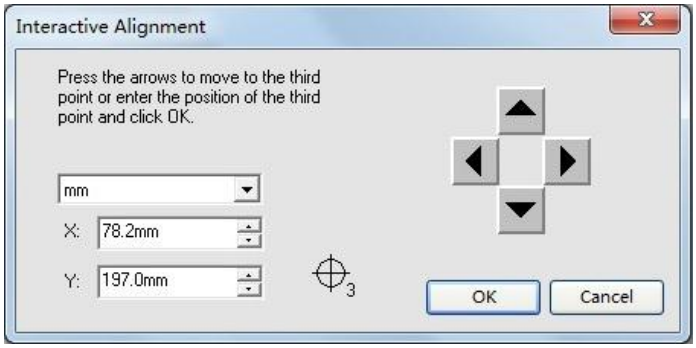
(12) It will popup the first point dialog box, make the red dot of the plotter aim at the center of the mark by clicking 4 arrow keys, and then click "**OK**".

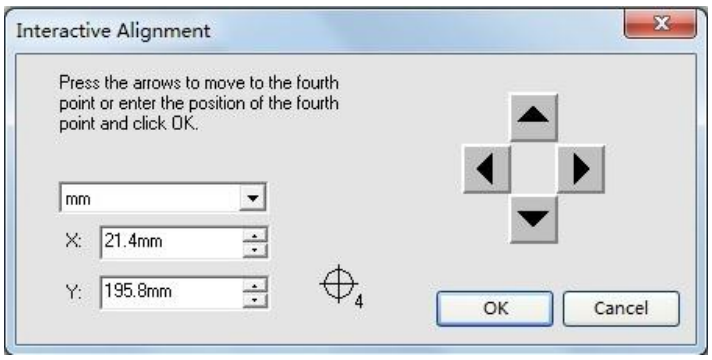


(13) Then it will popup the second point dialog box, and At the same time, the red dot moves to the second point automatically, make the red dot of the plotter aim at the center of the second mark by clicking 4 arrow keys, and then click "**OK**".

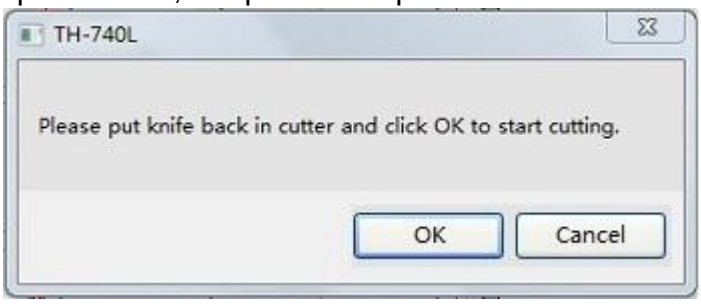


(14) The operations for the third and fourth points are similar as above.



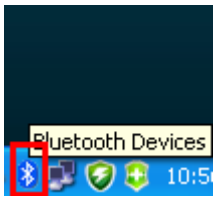


(15) Then it will pop up a dialog box as blow, press Origin button on control panel of plotter. And then press "**OK**", the plotter will perform the contour cut.

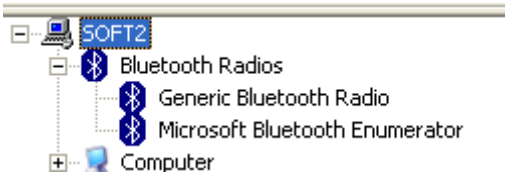


5.8 Wireless control (optional)

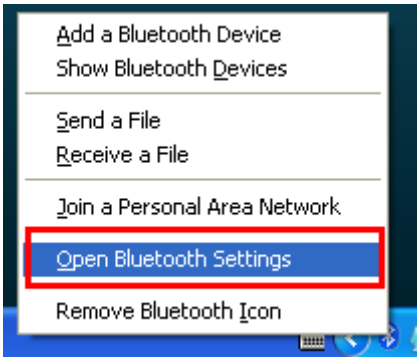
(1) Insert the Bluetooth adapter into the USB port, The computer will automatically install the driver, you will see the **Bluetooth** icon in the taskbar.



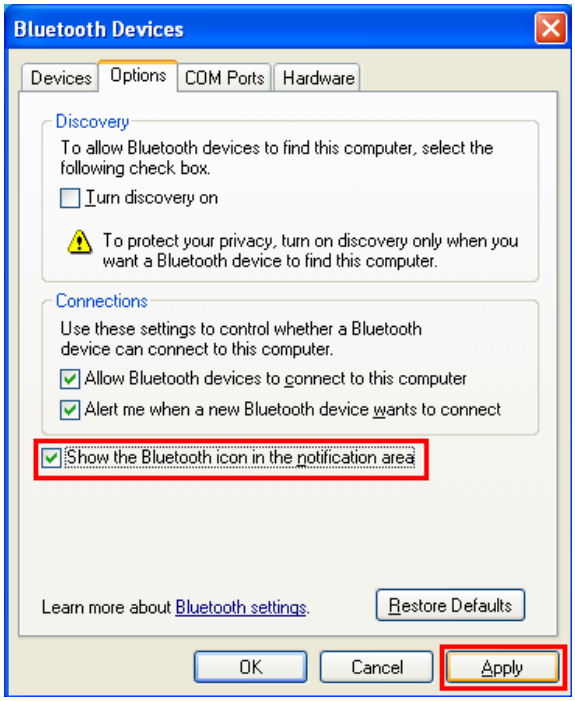
(2) Then you can find the "**Bluetooth Radios**" in the **Device Manager**.



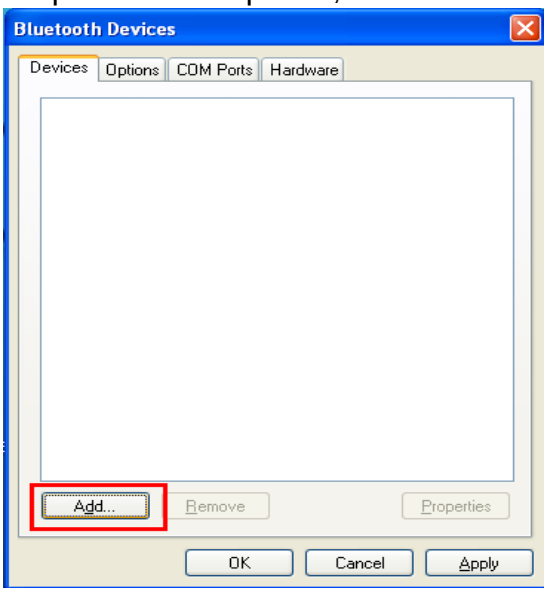
(3) Right click the **Bluetooth** icon in the Taskbar and click "**Open Bluetooth Settings**".



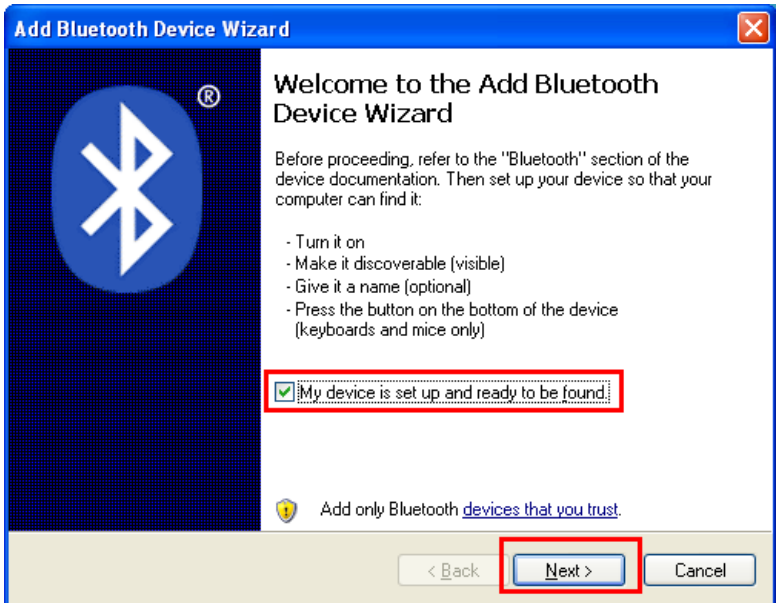
(4) Click "**Options**" tab when pop up the follow window, and select "**Show the Bluetooth icon in the notification area**" checkbox, then click "**Apply**".



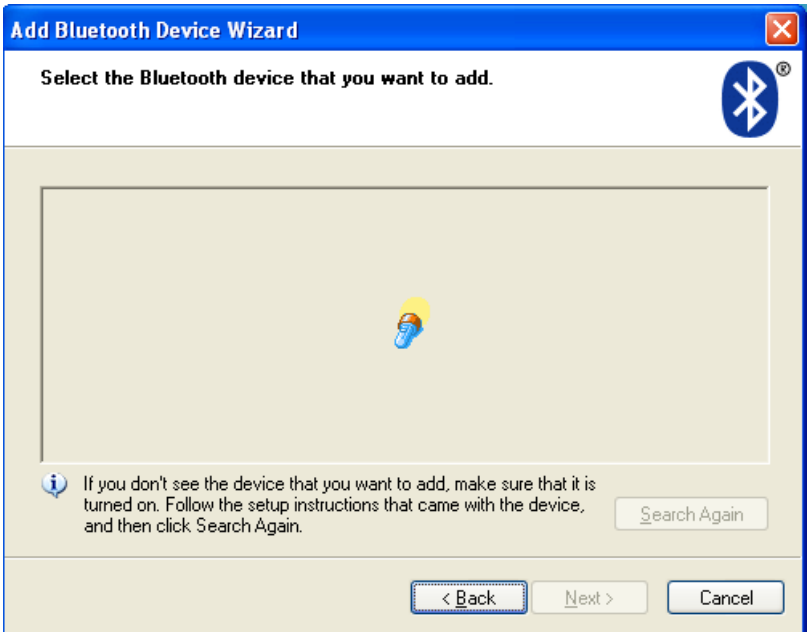
(5) To add the device, please power on the plotter, and click "**Add**" in the "**Devices**" tab.



(6) Select "**My device is set up and ready to be found**" in the pop up wizard, click "**Next**".

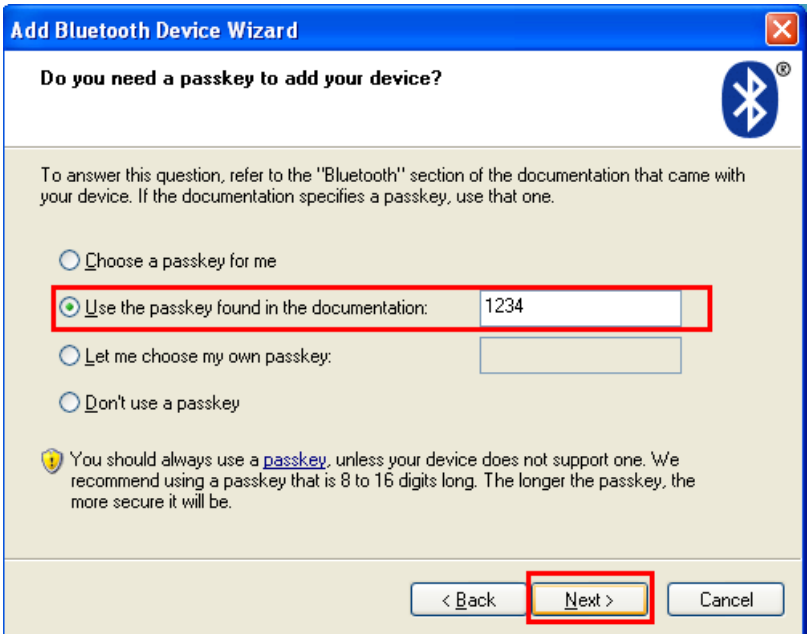


(7) Add Bluetooth Device Wizard will search the Bluetooth device.

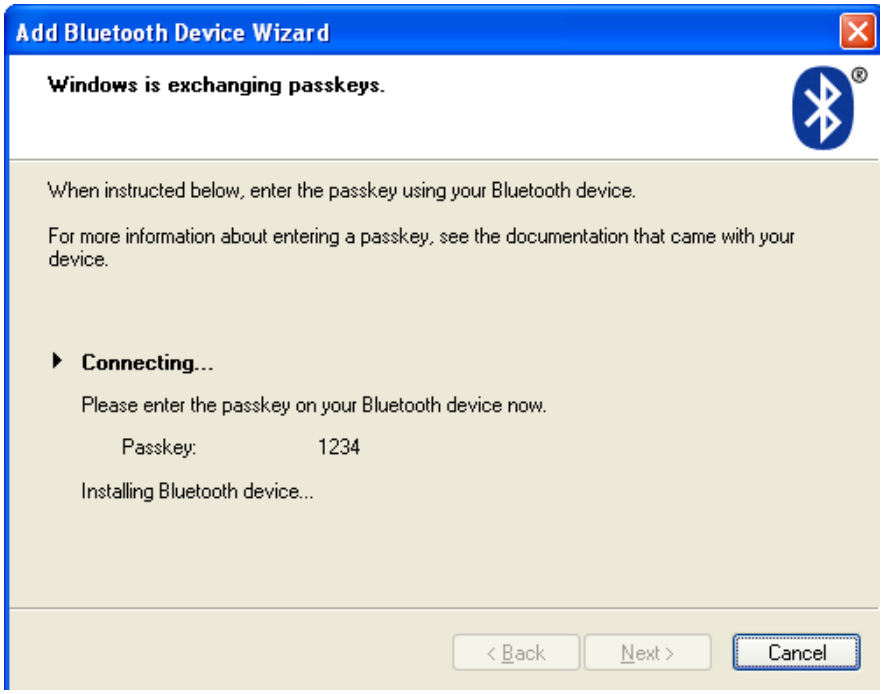


(8) Then it will find Teneth TB plotter, choose TB plotter, and click "**Next**".

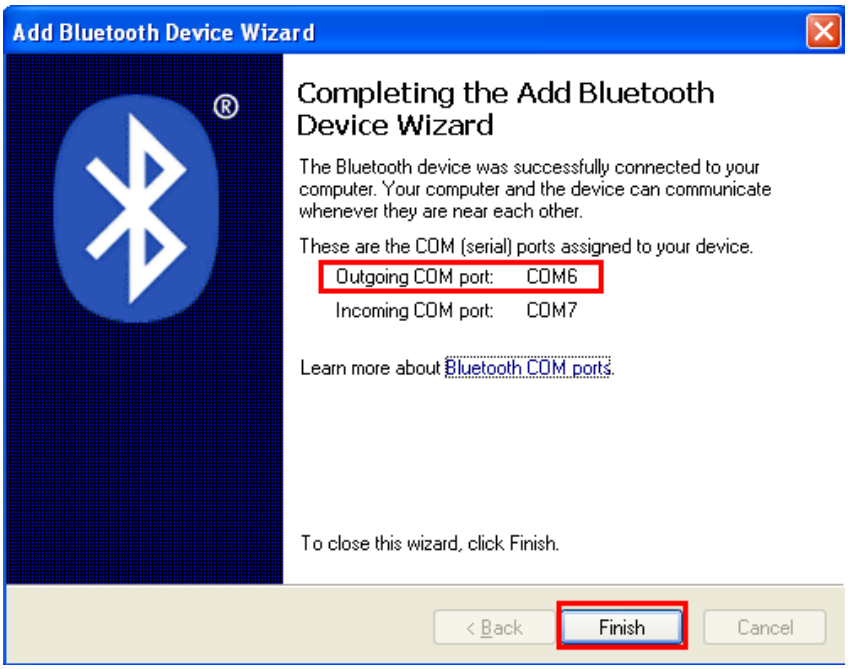
(9) The Wizard will ask you whether use a passkey or not, select " **Use the passkey found in the documentation**", then input the passkey in the textbox(The default passkey for TB series is 1234), then Click "**Next**"



(10) The wizard will match and install the plotter.
:



(11) When the wizard finish adding the Bluetooth device, please note down the Outgoing COM port (e.g. the outgoing port of below is COM6), Click "**Finish**" to complete the installation.



(12) After finishing adding the Bluetooth device, you can use Teneth TB plotter to cut via cutting software.

6. Specifications

Model	TH740	TH1300
Stand	Optional	vertical feeding paper stand
Main board	32-bit CPU,4MB high speed CACHE	
Control panel	11 Membrane Buttons plus 2.5" LED touch screen	
Driver Motor	Step	
locating system	Precise electronic limited interface system and arbitrary original setting system	
Max. feeding width	740MM	1300MM
Max. cutting width	630MM	1205MM
Max. cutting speed	600/1200mm/s	
Max. cutting Thickness	1mm	
Knife pressure	0-500/1000g (Digital adjustable)	
Mechanical resolution	0.05mm	
Repeat accuracy	<±0.05mm	
Knife(blade)	Roland or Pcut Imported alloy blade	
Drawing pen	11.4mm diameter, all kinds of water, oil, atomic paint pens, poster pen	
Drawing instruction	DM-PL/HP-GL Automatic Identification	
Connector	USB/ SD card/ Serial Port/Wi-Fi/U disk	
Power supply	AC110V /220V±10%,50Hz/60Hz	
Power consumption	< 100W	<120W
Working environment	Temperature:+5-+35,humidity:30%-70%	

Package size	1055*370*335mm	1595*455*335mm
Gross Weight	12KG	32KG
Optional function	Contour cut /Wireless control	