

# User Manual

## Digital Die Cutter VR350



**Please read this manual carefully before you use the machine!**

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## Content List

Chapter 1 Safety Instructions .....	1
1-1 Safety notes .....	1
1-2 Safety attention instruction .....	2
Chapter 2 Handling and Installation .....	3
2-1 Crate handling .....	3
2-2 Crate disassembly .....	3
2-3 Installation procedure .....	3
Chapter 3 System Introduction .....	4
3-1 Functions introduction .....	4
3-1-2 Suitable media .....	4
3-1-3 Application field .....	4
3-2 Packing List .....	4
Chapter 4 Preparation .....	6
4-1 Machine buttons distribution .....	6
4-2 Machine installation and operation .....	7
4-2-1 Media installation .....	7
4-2-2 Sequence to start machine .....	8
4-3 Camera and sensor setting .....	9
4-3-1 Sensor setting (electric eye) .....	9
4-3-2 Camera setting .....	9
4-4 Lamination setup .....	10
4-5 Die Cutting unit assembly .....	10
4-5-1 Blade structure .....	11
4-5-2 Replace blades (Pic10 as below) .....	11
4-5-3 Blade holder assembly .....	12
4-5-4 Adjust the blade depth .....	12
4-6 Waste removal setting .....	13
4-7 Slitting unit setup and adjustment .....	13
4-8 The rewinders setup .....	14
4-9 Sheet cutter setup(optional) .....	14
4-9-1 Position sensor setting .....	14
4-9-2 Start to work .....	15
5-1 Software workflow diagram .....	16
Chapter 6 Machine operation .....	23
6-1 Execute cutting .....	23
6-2 check and adjust the verticality .....	24
6-3 start to use waste removal function .....	25
6-4 slitter setting .....	25
Chapter 7 Machine maintenance .....	26
7-1 Maintenance .....	26
7-2 General cleaning and maintenance procedures .....	26
7-3 Trouble shootings .....	26
7-3-1 machine display error .....	26
Chapter 8 Warranty .....	31

# Chapter 1 Safety Instructions

## 1-1 Safety notes

1. The operator should obey the following 4 basic safety operation principles:
  - (1) The machine should be operated or maintained only by trained technician.
  - (2) Read the user manual in detail and understand its contents.
  - (3) For check convenience, put the user manual near the machine.
  - (4) The people including operator and maintenance technician should know location of E-stop device and realize its function and operation methods.

### 2. Safety precaution before or after turning on the machine:

Firstly confirm that whether all switches are OFF, and machine has been correctly ground with AC electric power source.

The electric power source used on this machine is 110V-220V~. Rated current of the main power switching device 20A. Such switching device should be in compliance with its safety relevant standards.

### 3. Safety precaution during handling and installation:

To increase the machine working efficiency, the installation environment should be well ventilated with good air quality. The surrounding temperature should be lower than 40 °C, and prevention of rain and direct sunlight is required.

Safety precautions during handling and installation are as follows:

- (1) Make sure that the foundation is strong enough to support the machine.
- (2) Lifting operation is only allowed one person.
- (3) When lifting the machine, nobody is allowed to be under or near the machine.
- (4) Helmet is required during handling, installation or cleaning.
- (5) If it's necessary to climb on the machine, please use safe and secure ladder or platform.
- (6) Adopt proper device for heavy parts lifting.
- (7) Confirm that whether the lifting wire rope is strong enough to lift the machine or components.
- (8) Please turn off the power before handling or installation. If power is required, let others know the location of E-stop device in advance.
- (9) Please wear leather gloves or other similar protective equipment during handling.

### 4. Safety precaution during operation:

The operator should be familiar with machine's function characteristics and operation methods. Don't let other people approach the machine. During running, stretch hands into work area is prohibited. If there is any abnormal situation happened, turn off the power immediately. After that, try to find the solutions.

Safety precautions during operation are as follows:

- (1) Do not remove any safety guarding or devices.
- (2) Do not remove or change location of any interlocking mechanism.
- (3) Prevent wet hands to touch switches.
- (4) Do not put any part of human body on or near the machine's moving parts.
- (5) Keep your hair away from moving parts.
- (6) Do not wear bangle, watch, jewelry or loose clothes.
- (7) Generally an operator is required for this machine. If more than one operator is required, there should be good communication between operators.

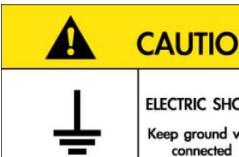
### 5. Safety precaution during maintenance:

Please turn off the power before maintenance.

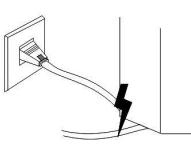
Safety precautions during maintenance are as follows:

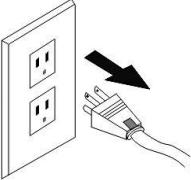
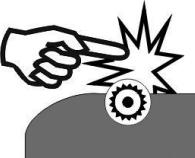
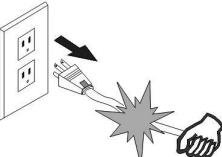
- (1) Turn off the main power before inspection or maintenance.
- (2) Maintenance or inspection should be carried out by authorized technician.
- (3) It is prohibited to climb the machine.
- (4) Please use the recommended lubricant or grease.

### Cautions labels

	Do not put hand into safety guard when machine is working.
	Keep handing away from rolling system
	Keep rolling gears clear, no objects involved.
	Keep grounding wire connected.
	electric shock hazard

### 1-2 Safety attention instruction

	<p><b>Do not touch the top end of knives.</b> Otherwise, fingers will be injured.</p>
	<p>Do not damage and change original power wire and plug. The power cord should not be excessively bent, strong tension, bundling and compression under heavy loads. This will make power supply damaged, and cause electric shock and fire.</p>

	<p>As a long time no use, please put down the power cord from the wall socket Otherwise it will probably to cause the fire.</p>
	<p>Machine running, do not put hands on axis, this will cause injury.</p>
	<p>When the power cord from the socket, you should pull the plug, should not pull the cable. Stronger pull the cable can result in electric shock or fire.</p>

## Chapter 2 Handling and Installation

### 2-1 Crate handling

Use forklift with capacity of 1 tons to transport the crate.

### 2-2 Crate disassembly

#### Crate assembly

Firstly put it on bottom board. Then fix the machine on the board. After that, install the 4 side boards. Finally put on the top board.

#### Crate disassembly

Use the claw hammer to pull off the nails, the arrow direction was put the nails, you can take off the front cover.

**Storage temperature:** 10-40 °C   **Humidity:** 30~90%

**Machine handling.** There are wheels at the bottom of the machine that can be pushed and moved; You can also use a forklift to move the machine.

**Space requirements(floor size)** . Length: 2.5m, Width: 1.5m, Height: 2.0m

**Electric and pneumatic specification.** Electric power: 220V, 50/60Hz as standard.

### 2-3 Installation procedure

1. Move machine to stable level floor by forklift.
2. Use wrench to adjust the level of machine foot.

## **Chapter 3 System Introduction**

### **3-1 Functions introduction**

#### **3-1-1 Multifunctional digital label die-cutter**

The VICUT multiple blades digital die cutter VR350, equipped with maximum six blades, heads distance is fully automatic adjustable with AI software control, which is perfect for short to medium length print finishing. With linear system, users are able to work with high end laminating films, two re-winders at final step can make it more convenient to rewind the small rolls after slitting. Optional inline sheeting system is able to cut roll into sheets easily, or it can be used as an offline solution to cut roll products to any length needed!

#### **3-1-2 Suitable media**

Adhesive label, PP, plastic film, PET, PVC, white card paper, art paper and others.

#### **3-1-3 Application field**

VR350 roll to roll label finisher is mainly used for medium volume on-demand label production including blank labels, ink labels, chemical labels, beverage labels, bottled water labels, chili source labels, coffee labels, cosmetic labels, home appliance label, toiletries label, gum label, wine labels and more.

### **3-2 Packing List**

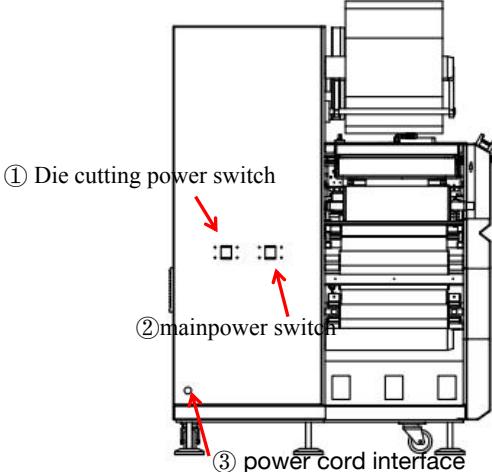
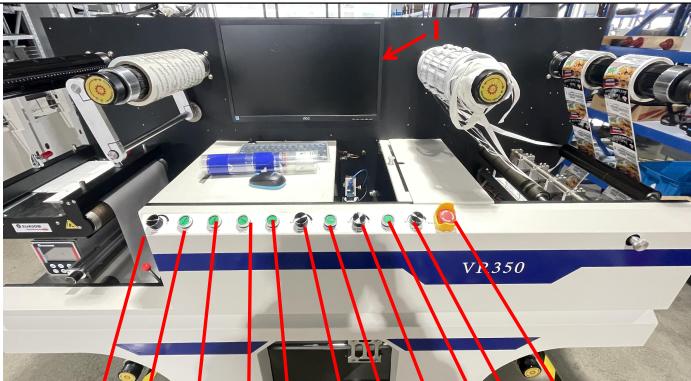
Sqe.	Item name	QTY	Remark
1	Machine body	1set	/
2	Blades holder (assemble with machine)	4sets/6sets	4 heads/6 heads machine
3	Slitting unit (assemble with machine)	4sets	/
4	Blades	4pcs/6pcs	4 heads /6 heads machine
5	Monitor	1set	/
6	Key board	1set	/
7	Mouse	1pcs	/
8	Power plug cable	1pcs	/

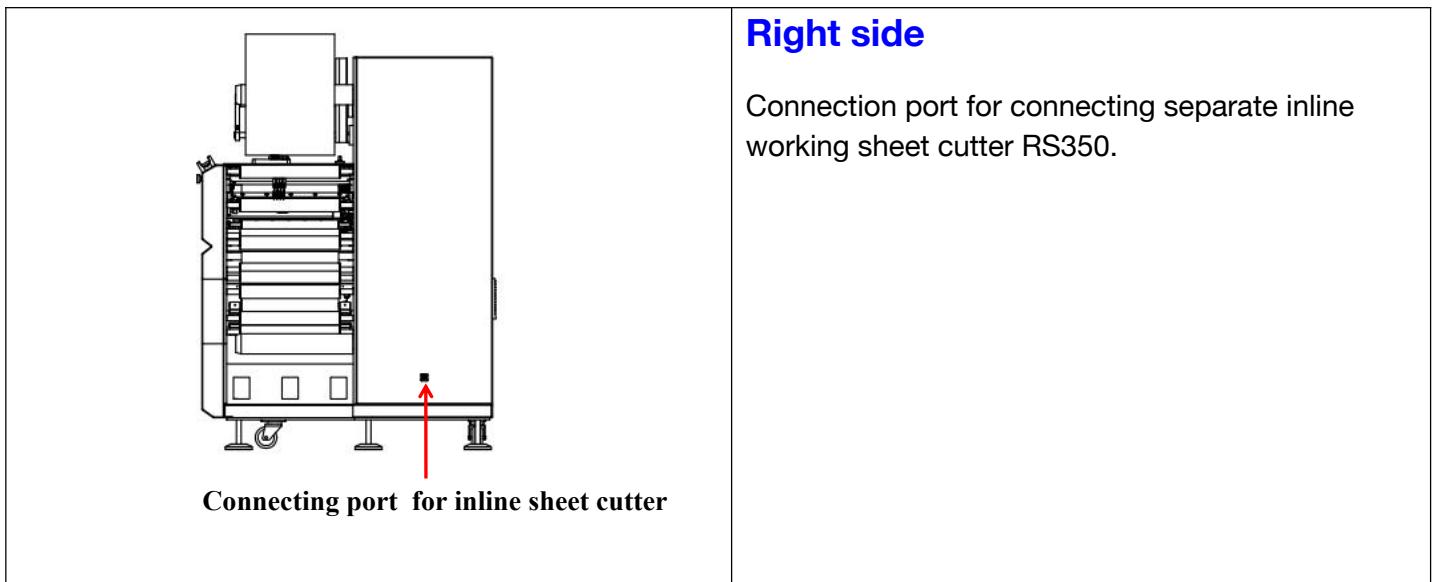
<b>Technical parameters</b>	
<b>Model</b>	<b>Automatic Digital R2R Label Die Cutter VR350</b>
No. of cutting heads	standard 4 heads, up to 6 heads
Working speed	9m/minute(cut 7cmx15cm square)
Max. label size	1250mm*330mm(L*W)(single label)
Cutting media width	100--350mm
Maxi. media roll diam.	450mm
Maxi. laminating roll diam.	300mm
Max. matrix roll diam.	350mm
Max. rewinder roll diam.	upper rewinder roller 350mm; down rewinder roller 450mm
Operation system	Embedded computer with Ai operation software& large screen LCD monitor
Heads distance adjustment	Automatic distance adjustment between all cutting heads
Unwinder & Rewinder	1 unwinder roller and 2 rewinder roller with mechanic expansion
Reg marks type	dot marks+ number codes/QR codes
Positioning device	Electric eye+CCD camera
Job exchange function	YES
Data transfer method	PC direct
Die cutting precision	0.1mm(repeat)
Slitting width	10-330mm
Slitting system	Round knife slitting System with position adjustment (4 slitters, max. 15pcs)
Slitting speed	max.100m per minute
Slitting precision	0.1mm
File format	PLT, DXF
Working voltage	AC100-240V, 50-60HZ, 1000WATTS

Machine dimension	1800*1080*1460mm
Packing Size	216*130*197CM
G.W. / N.W.	1450kg/1400kg
Optional function 1	multiple slitting units
Optional function 2	Separate inline sheet cutting system

## Chapter 4 Preparation

### 4-1 Machine buttons distribution

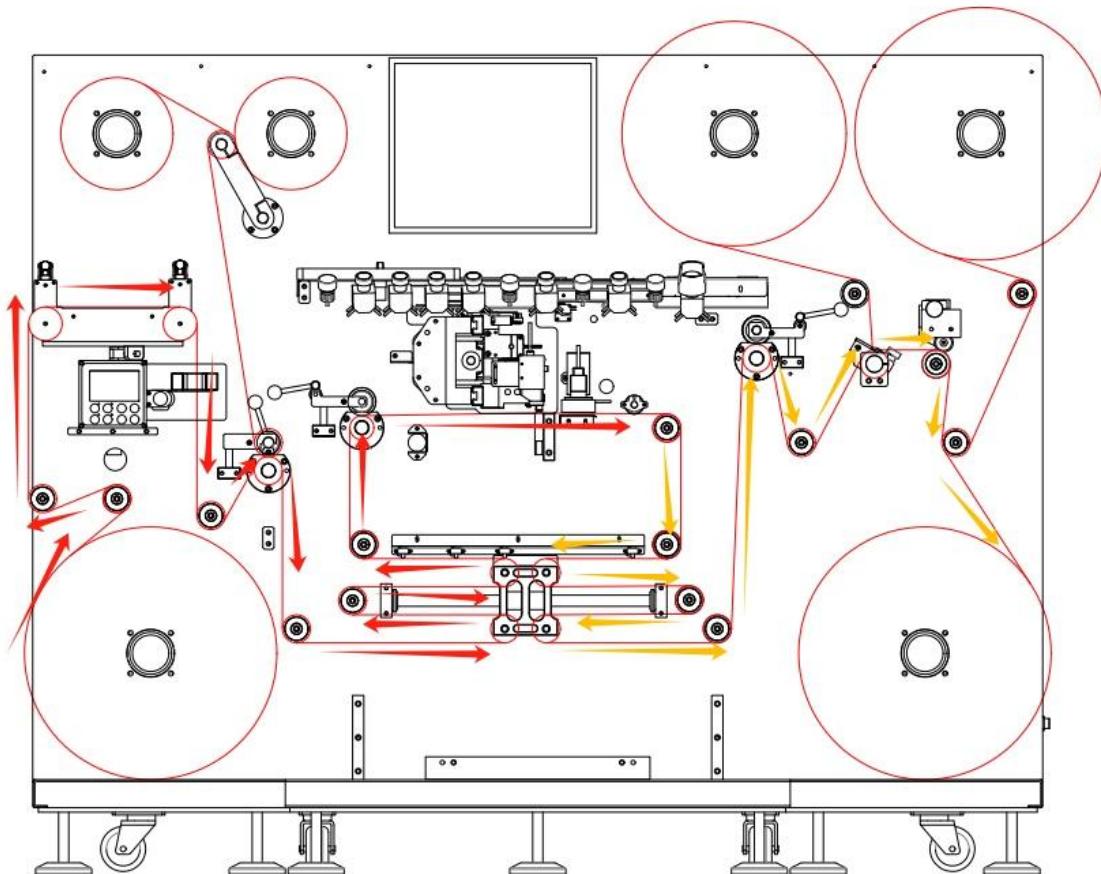
	<p><b>Left side</b></p> <ol style="list-style-type: none"> <li>1. Die cutting switch</li> <li>2. Mainpower switch</li> <li>3. Power cord interface</li> </ol>
 	<p><b>Front side</b></p> <ol style="list-style-type: none"> <li>1. Monitor</li> <li>2. Film liner removal speed adjustment knob</li> <li>3. Feeding tension</li> <li>4. Linear tension</li> <li>5. Lamination tension</li> <li>6. Down rewinder speed knob</li> <li>7. Down rewinder tension</li> <li>8. Upper rewinder speed knob</li> <li>9. Upper rewinder tension</li> <li>10. Waste removal tension</li> <li>11. Waste removal speed knob</li> <li>12. Emergency button</li> </ol>



## 4-2 Machine installation and operation

### 4-2-1 Media installation

## VR350 Paper Feeding & Rewinding Chart



< PICTURE 1 > Media Installation Process Diagram

Please refer to the above "Media Installation Process Diagram(PIC 1)". Please install the media in the direction of the red line.

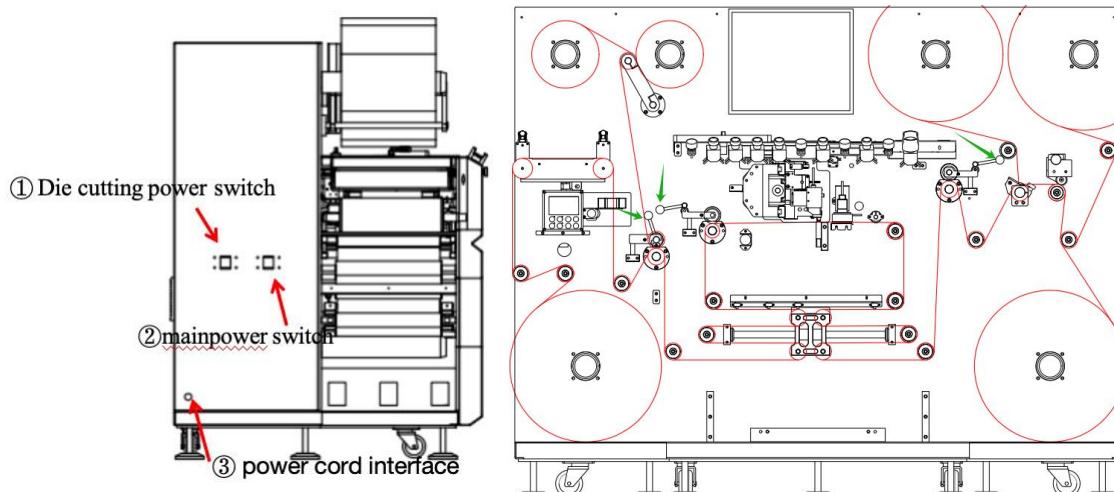
- 1) At first place the media roll on the unwinding roller and align it inward.
- 2) Manually tighten the unwinding roller shaft;
- 3) Release off the laminating shaft pressure roller;
- 4) Manually thread the paper media under the laminating roller, bypass the sliding roller assembly, open the X-axis pressure rod, bypass the sliding roller assembly again, and open the material receiving pressure rod.
- 5) Pass the material through the rewinding shaft, open the slitting pressure rod, pass it through the slitting shaft to the rewinding shaft, tension the rewinding shaft and press down all the pressure rods.

**⚠ Attention: The correction system has been set up at the factory default and automatically works when powered on. It is strictly prohibited to adjust any parameters.**

#### 4-2-2 Sequence to start machine

1. Turn on the main power and wait for 10 seconds for the computer to turn on before turning on the die-cutting power, and all the paper pressure rollers need to be put down.

(The power switch is indicated in the below left image, and the paper pressure roller is indicated by the green arrow in the below right image.)

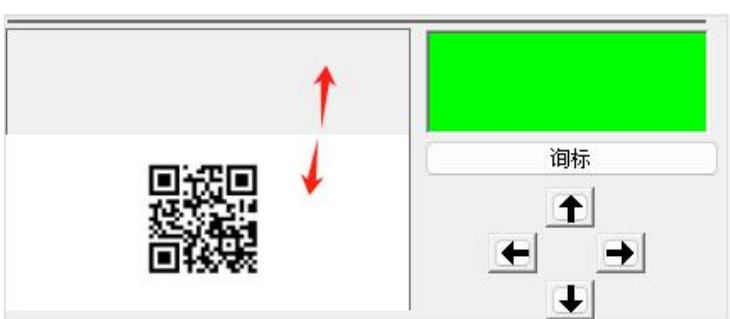


2. After entering the system, open the software and click enter. First, click "reset". Then, Click "feed"(see PIC2) .

(Check if the paper is straight via observing if the paper in the camera window is floating up and down. See PIC 3.)



PIC 2

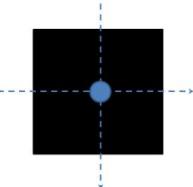


PIC 3

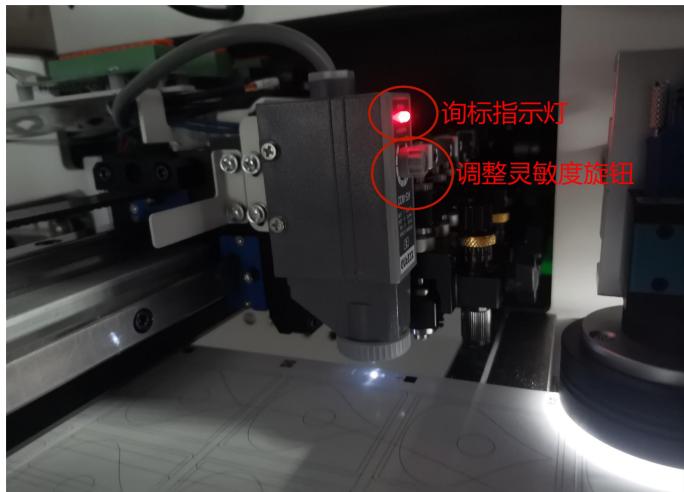
## 4-3 Camera and sensor setting

### 4-3-1 Sensor setting (electric eye)

The sensor combines the cutting head and the blade to move together. It detects black mark on media and accurately knows where to start. (Search for black marks on the camera side)



< PIC 4>



< PIC 5 >



< PIC 6 >

Move the sensor and it lights in the middle of the black mark. The black mark size normally is 4x4mm.(pic4);

Please make sure the sensor is on the correct position when install media. Sensitivity may need to be adjusted based on the media to be cut. Make sure the red light is on when lighting on the black mark (pic5) , and the red light is off when it lights on the blank area. (pic6)

### 4-3-2 Camera setting

The knob (Pic7) adjusts the brightness of the camera to ensure that the camera can collect black mark information normally.

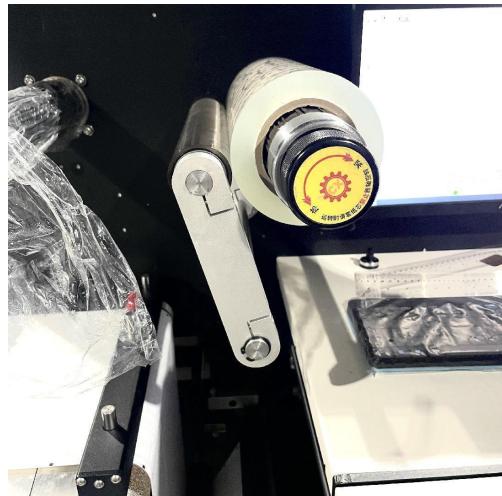


< PIC7>

Note: Click the forward arrow on the screen to move the black mark to the camera display area. When adjusting the brightness of the fill light, click on the inquiry mark in the upper right corner of the software and observe the recognition window until it prompts that the inquiry mark is normal.

## 4-4 Lamination setup

Load a laminating film roll on the laminating expand shaft, adjust the appropriate position to be parallel to the covered area (pic8), then tension the lamination shaft.



< PIC8>

Laminating expand shaft does not have driving motor connected. It is passive system using main feeding power. You can adjust the tension in the software menu(parameter settings) . You can increase/decrease friction by adjusting tension, controlling overshoot capacity.(suggested 15-20). After installing the cold lamination film, stick the adhesive side onto the material. Click the forward button on the control panel to flatten the film and release the lamination roller.

**⚠ Caution: The width of laminating film must be less than the media width.**

## 4-5 Die Cutting unit assembly

Please select the cutting blade that is most suitable for the media to be cut based on the thickness.

Parts No.	Specificati	blade	For media
VD 10U	Ø1.0 mm 0.45	VD240-10U	Use for the media thickness is $\leq 0.25$ mm .
VD 15U	ø1.5 mm 0.75	VD240-15U	Use for the media thickness is 0.25 mm to 0.5mm.

#### 4-5-1 Blade structure.

This cutting machine uses cutting blades installed in the holder for cutting .There are two different blade holders to fit the installed blade diameter. (1.0mm blade holder is the standard) Be sure to install the blade on the corresponding holder. (pic9)



< PIC9>

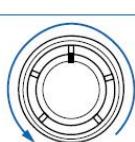
#### 4-5-2 Replace blades (Pic10 as below)

⚠ Be careful when holding the blade to avoid cutting yourself.



< PIC10>

Step1-Rotate the blade length adjustment knob to retract the blade back into the holder.(Pic11)



< PIC11>

Step2-Rotate the blade holder cap counterclockwise to remove it from the holder.

Step 3-Take out the blade from the blade holder cap.

Step 4-Insert the new blade inside.

Step 5-Tighten the blade holder cap after inserting the blade. Blade tip should be not too long.

#### 4-5-3 Blade holder assembly

Loosen the grabber screw and install the cutting blade. After positioning the cutting blade, tighten the grabber screw. (Pic12)

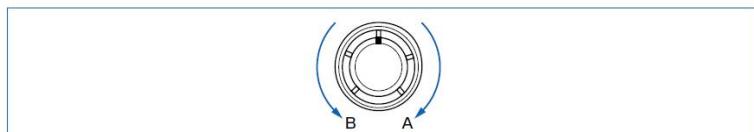


< PIC12>

#### 4-5-4 Adjust the blade depth

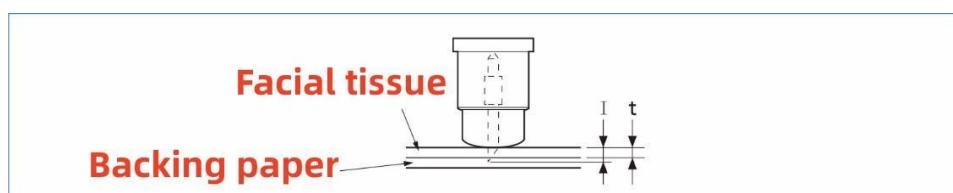
If the blade protrudes longer than the thickness of the media to be cut, it will damage the blade tip and holding bar. Then please adjust the blade depth.

Step 1: On the screen manual testing interface, (click on the knife press button), rotate the blade length adjustment knob to adjust the blade length. Extending the blade towards the "A" direction, retract the blade in the "B" direction. Each rotation of the knob causes the blade to move by approximately 0.5 mm(pic13)



< PIC13>

Step 2-Propose the media thickness is “t” (pic14), then the blade length should be equal or a bit longer than “t”. Make sure “l” cannot exceed the total thickness of the top and bottom paper. If the thickness of the top paper cannot be accurately determined, pls adjust the blade length by increasing it bit by bit by operating the direction keys until the blade leaves only traces on the bottom paper after cutting.



< PIC14 >

## 4-6 Waste removal setting

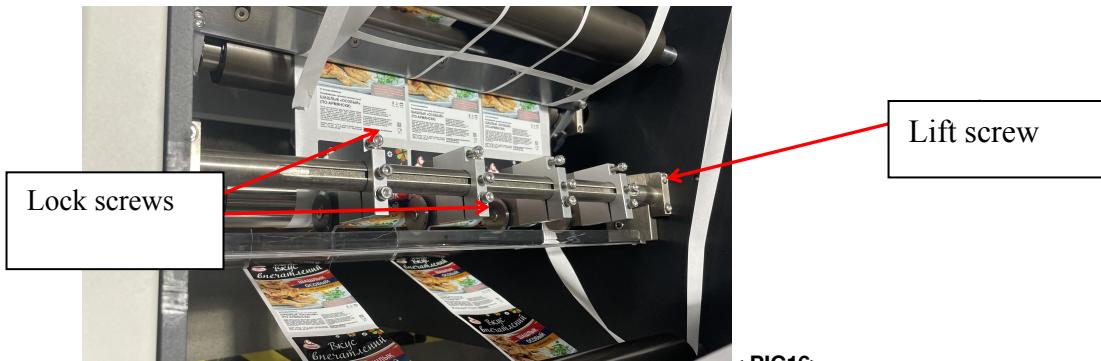
The waste discharge shaft is controlled by independent motor. Peel off the waste from the media and fix it on the shaft and tighten it (pic15). Switch on the waste discharge motor, adjust the speed according to the cut speed. Adjust the suitable tension in the screen according to the media characteristic(suggested15-20), to avoid any tensile failure.



< PIC15>

## 4-7 Slitting unit setup and adjustment.

One slitting unit has 2 locking screws(Pic16).Loosen the screw bar and move the slitting holder to the position where the blade is to be placed. The machine can install maximum 15 slitters. The depth of the cutting blade can be adjusted by tightening or loosening the bolts.



The knob in front of the slitting knife is used to adjust the position of the slitting blade. Turning the knob can cause the slitting blade to move as a whole(the distance of the blades cannot be adjusted), the adjustment range is 10mm.(pic17)

 Note: The slitting knife is sharp. Be careful when installing it to avoid cutting your fingers.

## 4-8 The rewinders setup

Adjust the tension of the rewinding rolls appropriately on the screen according to the material characteristics(suggested 55-65)to prevent excessive tensile force from breaking the material, and excessive tension from causing the material to unwind and become loose.



< PIC18, PIC19>

## 4-9 Sheet cutter setup(optional)

Sheet cutting system is individually controlled. Open the cutter online function in the computer screen to start sheet cutter. Lift the cutter feeder roller, pass in turn the cutter buffer rod, feeder roller, cutter edge, press down the cutter feeder roller. Click the forward button on the screen until the media feeding straight.

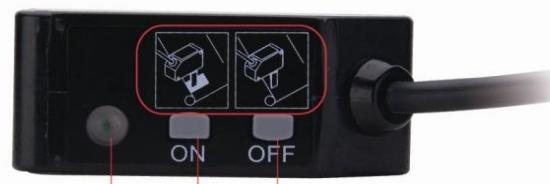
**⚠ Note:** The initial position of the machine must be placed accurately to prevent the media from tilting.

### 4-9-1 Position sensor setting

After the material is straightened, move the cutting position to the cutter edge by pressing the paper feeding button and adjust the sensor(pic20). Adjust the position a bit and lock it . (pic21).

#### 设定简单

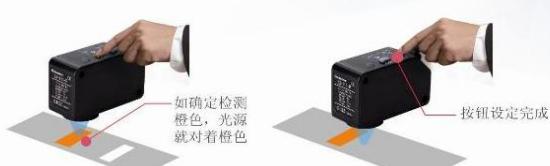
光源对准确定检测的颜色，按ON键即设定完成，简便易操作。



工作状态指示灯 ON按钮 OFF按钮

① 光源对准确定检测的颜色后按“ON”键

② 光源移开设定颜色后，按“OFF”键



< PIC20>



< PIC21>

#### 4-9-2 Start to work

Click on the trial cut on the screen to view the cutting effect and position. Set the length of the cut, input the quantity to be cut and the number of groups, and click the start button. The cutting position can be mechanically adjusted or adjusted through paper feeding compensation on the screen. At this time, the sheet cutting system communicates with the die-cutting system, and as long as one stop occurs, it will all stop working.

**Note:** An independently user manual for separate sheet cutting machine RS350 will be provided if needed.

# Chapter 5 How to make Printing file and Cutting file

## 5-1 Software workflow diagram.

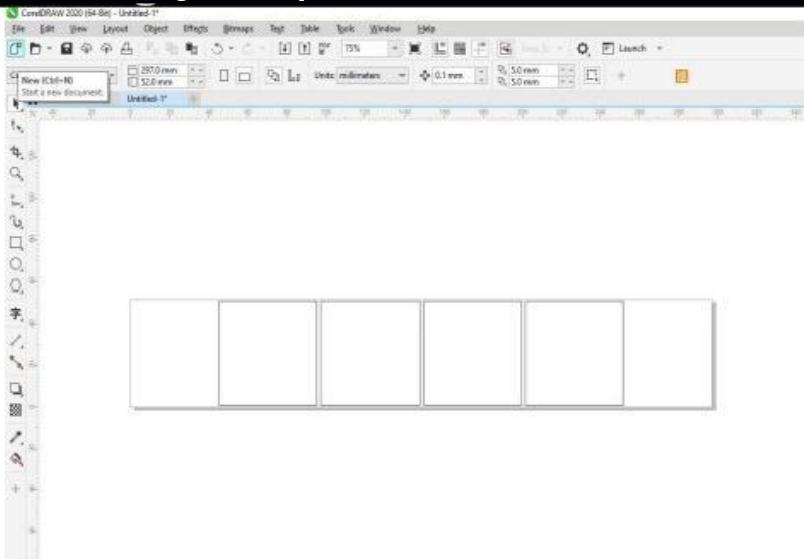
### 5-1-1 Printing file requirements

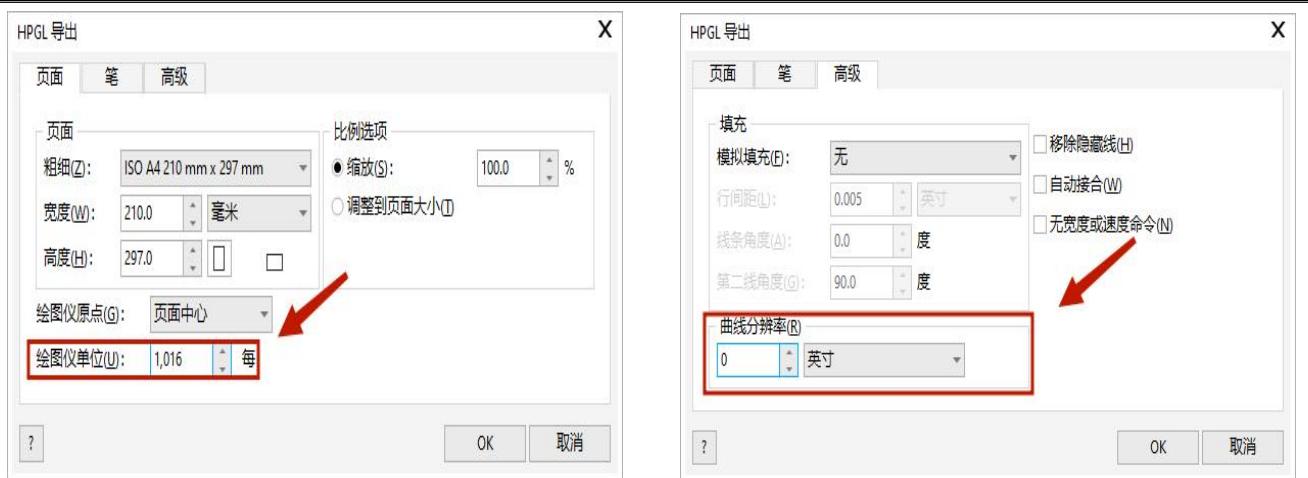


The size of the black mark is not less than 4\*4mm, ensure that the black mark is 2mm blank away from the content and the black mark is parallel to the printed content.

**Note:** It needs to add 3-8 digits if auto job changing application needed and uses Arial font, the size is 6pt. And the number should be 0.5-1mm away from the black mark.

### 5-1-2 Cutting file requirements





Export the die-cutting file to PLT format, the plotter unit is 1016, and the curve resolution should be 0.

Note: No matter whether you want to track single mark, or double mark or track by camera, the printed file and the die cutting file must be double black mark which should be at the right side. The number in the original printed file needs to be deleted from the die cutting file. If using the QR code function, please replace the QR code of the die cutting file with a black mark.

### 5-2-3 Software interface introduction(1)



File: Open, save and export file.

Optimization: Drop point setting and file optimization.

Output: used for regular output and split output

Shortcut:

	Open file		Save to working list		Directly output to the machine.
	delete		select black mark		Select half cut
	Confirm dropping point		set dropping point		Cutting lines overview
	Help (user manual)				

Note: VR350 has no deep cutting/full cutting function.

## 5-1-4 Software interface introduction(2)

The screenshot shows a software interface for a machine. On the left, there is a camera view showing a black square and the number "0001". To the right of the camera view is a green box displaying coordinates "x=320 Y=240" and the text "数字 0001". Below this is a "询标" (Inquiry) button and a set of directional arrows. On the far right, there is a configuration panel for tool spacing. It lists six tools with their respective colors and spacing values:

刀具	间距 (mm)	偏移 (mm)	范围 (mm)
1号刀	0.000	0.000	42-236
2号刀	0.000	0.000	126-320
3号刀	270.000	0.000	84-278
4号刀	1.000	0.000	168-320
5号刀	0.000	0.910	168-320
6号刀	0.000	0.900	210-320

Below the table are several checkboxes and options:

- 保持原文件顺序 (Keep original file order)
- 自动计算刀间距 (Automatic tool spacing calculation)
- 自动计算落刀点 (Automatic drop point calculation)
- X轴优先 (X-axis priority)

Select the current work machine number, then click refresh.

Display the currently recognized black coordinate position and number, click on the inquiry mark to test the camera.

**Auto job change:** After turning on this function, you can recognize numbers or QR codes to automatically switch between orders that have been added to the file list.

**File transfer:** After turning on this feature, files that have completed work will be automatically deleted and transferred to the completed list.

Choose knives based on the graphic arrangement of the file.

**Offset:** Offset compensation for tool (Y-axis).

**Maintain source file order:** Cut according to the order of graphic arrangement.

**Automatic calculation of tool drop point:** The tool drop point is automatically set on the X or Y axis according to the graphics system.

**Automatic calculation of tool spacing:** The system will automatically assign working tool heads and calculate the distance between each tool based on the graphic content. (Note: Some graphics may fail to calculate. Unable to assign work tool heads, please manually set the tool spacing.)

**Move up/down:** Move files order.

## 5-1-5 Software interface introduction(3)

Work list		Completed list			Move up	Move down
Job no.	File name	Cut number	Cut jobs	Last jobs		
24-1	24-1.plt;	20				
24-1	24-1.plt;	50				

work list: Display the file no. , file name, cut jobs, finished jobs and total jobs.  
 Completed list: Show the finished jobs while transferring files .

Work list		Completed list			Move up	Move down
Job no.	File name	Cut number	Cut jobs	Last jobs		
24-1	24-1.p	20				
24-1	24-1.p	50				

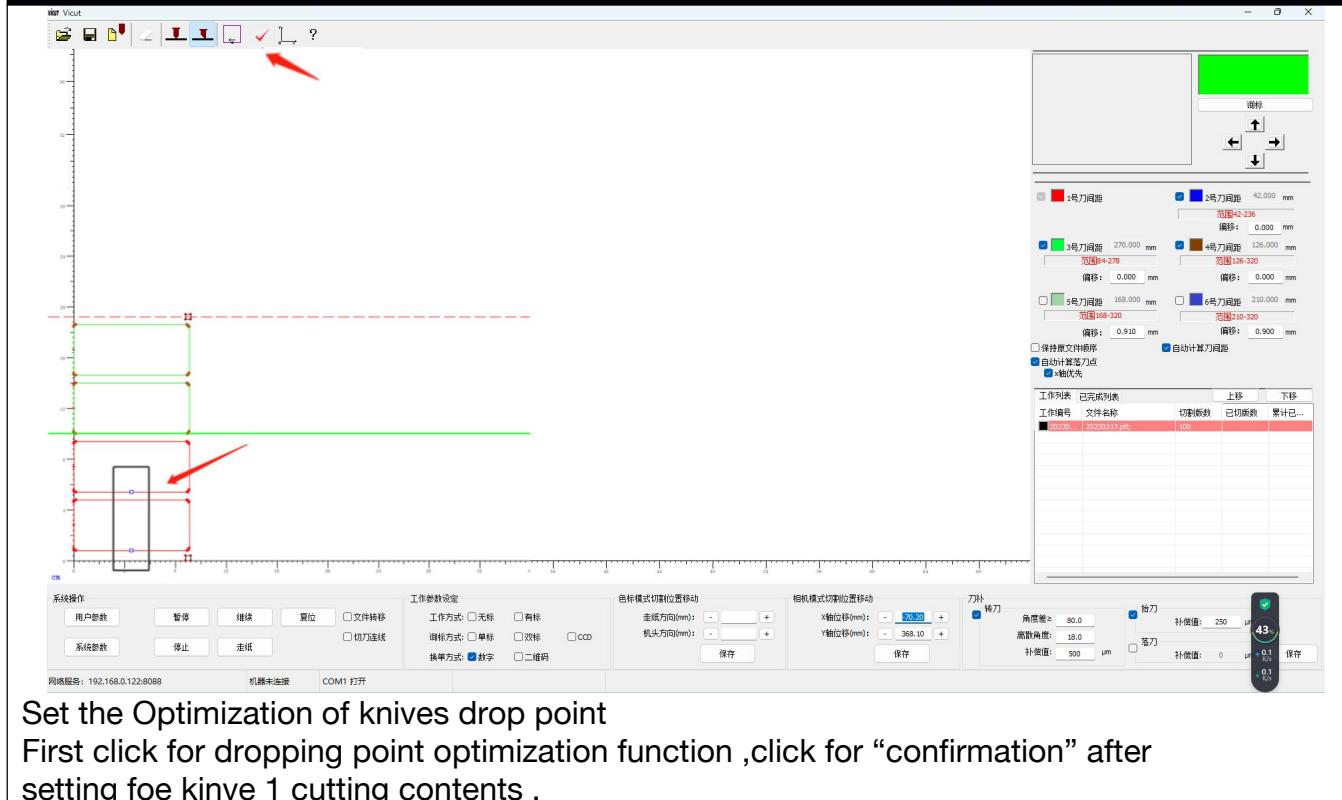
Right click the mouse to show: the file to be cut, finish job, delete file and modify file.

## 5-1-6 File input

工作列表	已完成列表	上移	下移
工作报告 文件名称	切割次数 已切割数 累计已...		
20230317.plt	100		

Open the software, import the die cutting file which is in PLT or DXF format. According to the cutting file, the software will choose the number of blades to be used and whether needs to calculate the blades distance automatically and set the dropping point, to arrange the suitable cutting path automatically.

## 5-1-7 Set the dropping point

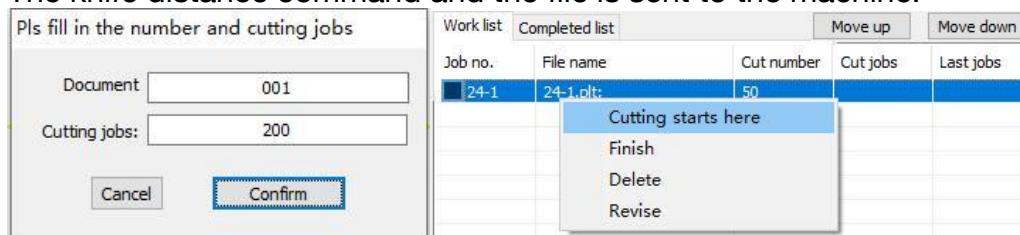


Set the Optimization of knives drop point

First click for dropping point optimization function ,click for “confirmation” after setting for kinve 1 cutting contents .

## 5-1-8 Output sending

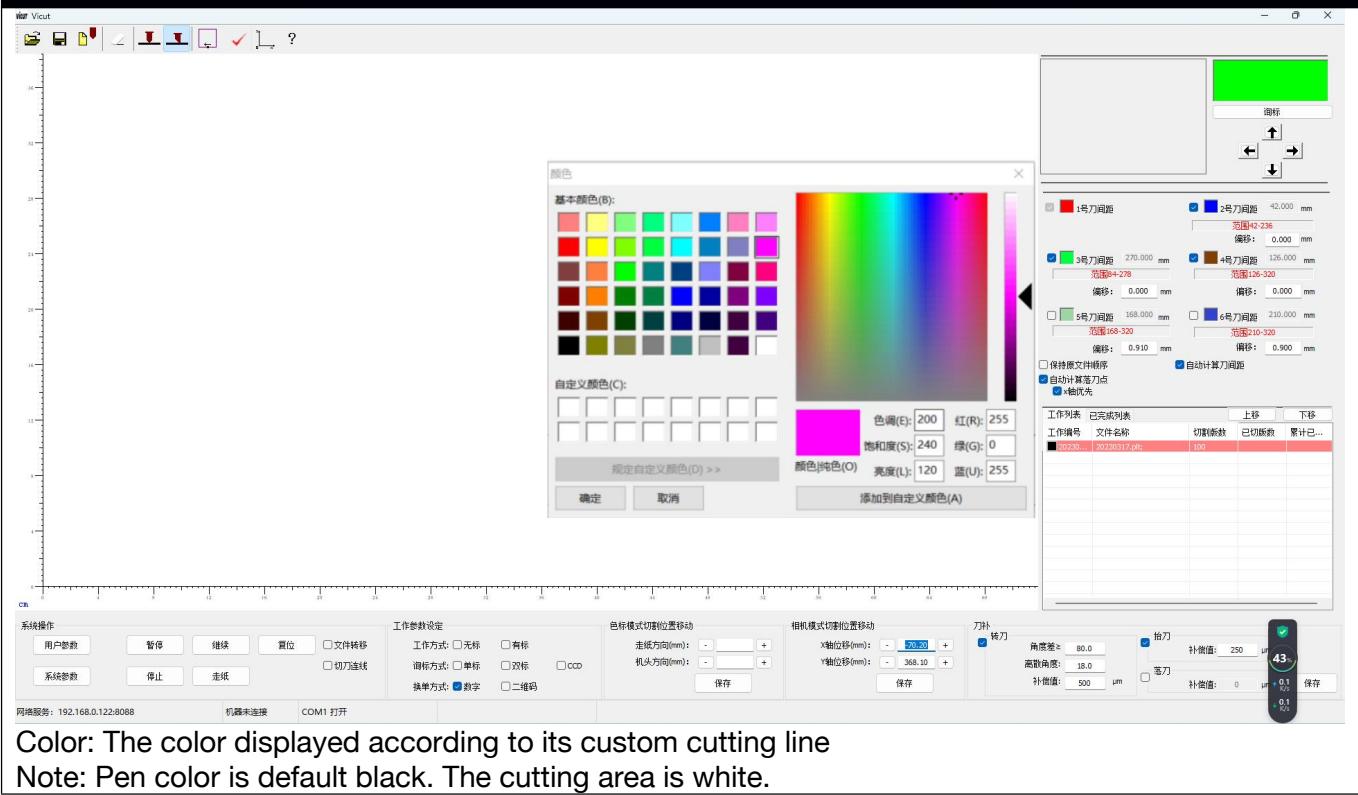
**Output file 1:** Click to add the ready files to the working list. Input the file no. which is same as the printing file and set the cutting job numbers and confirm to cut. The knife distance command and the file is sent to the machine.



**Output file 2:** Click , the knife distance command and the file are sent to the machine . The default cutting job is 1. If more jobs needed, pls input the exact cutting job numbers and then click for repeat cutting .

**Output file 3:** Save the file to USB . (file name can only be digit or English. USB format is FAT32, capacity less than 8GB.

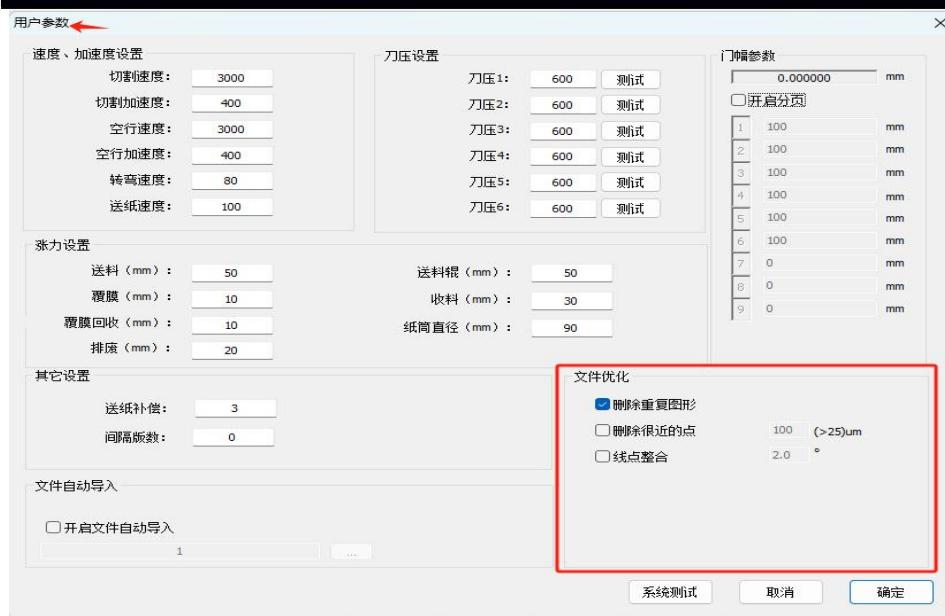
## 5-1-9 Setting of knife color



Color: The color displayed according to its custom cutting line

Note: Pen color is default black. The cutting area is white.

## 5-1-10 File Optimization setting



Optimization setting: optimize files.

Delete repeat figures: Delete repeated die cutting lines or black marks in the original file.

Delete the nearby segments. Delete the dots in 100μm

Defective processing: Optimize the explosive and miscellaneous points such as corners in the file.

## 5-1-11 Other parameters setting

机械参数

X垂直度1(mm/cm):	0.0000
Y垂直度1(mm/cm):	0.0000
X缩放(mm/cm):	0.0000
Y缩放(mm/cm):	0.0000
刀距2补偿(mm):	0.00
刀距3补偿(mm):	0.00
刀距4补偿(mm):	0.00
刀距5补偿(mm):	0.00
刀距6补偿(mm):	0.00
落刀延时(ms):	0
抬刀延时(ms):	0
询标首次补偿(mm):	72.000
询标首次延时(ms):	20000

X垂直度2(mm/cm):	0.0000
Y垂直度2(mm/cm):	0.0000
X方向长度(mm):	0
Y方向长度(mm):	0
2号刀间距(mm):	42.000 236.000
3号刀间距(mm):	84.000 278.000
4号刀间距(mm):	126.000 320.000
5号刀间距(mm):	168.000 320.000
6号刀间距(mm):	210.000 320.000

相机参数

X轴像素缩放(p/mm):	35.56
Y轴像素缩放(p/mm):	35.56

相机模式切割位置移动

X轴位移(mm): -70.20

Y轴位移(mm): 368.10

保存

Note: Find these parameters from “mechanic parameters”

Inquiry mark first compensation:

The distance from the camera when the mark sensor first finds the black mark.

First inquiry delay:

The first inquiry time of the inquiry sensor.

NO.2 blade spacing:

working range 42-236mm

NO.3 blade spacing:

working range 84-278mm

NO.4 blade spacing:

working range 126-320mm

NO. 5 blade spacing:

working range 168-320mm

NO. 6 blade spacing:

working range 210-320mm

Note: The camera parameters are within the system have been debugged in the factory and no need to be changed.

X-axis offset: displacement parameter setting in the x-direction of the cutting position

Y-axis offset: setting of displacement parameters in the Y-direction of cutting position.

X-axis pixel scaling: conversion of X-axis pixels to millimeters

Y-axis pixel scaling: conversion of Y-axis pixels to millimeters

## 5-1-12 Related settings



Knife lift adjustment: Adjust the value before lifting the knife based on the unconnected length setting.

Knife drop adjustment: Adjust the value before dropping the knife based on the unconnected length setting

Bend adjustment: Angle difference. Adjust the value for angles greater or less .Discrete accuracy: The greater the discrete accuracy, the lower the accuracy, and the smaller the accuracy, the higher the accuracy  
Adjustment value -It should be adjusted according to the knife version since the knife point is not in the center.



**⚠ Note: this setting should be done before saving the file.**

### 二维码

- 开启二维码识别  
 开启二维码文件导入

C:\Users\linde\Desktop\CUT

...

### QR code recognition function.

After enabling the automatic file import function, the file is stored in the specified folder and will be automatically loaded into the work list.

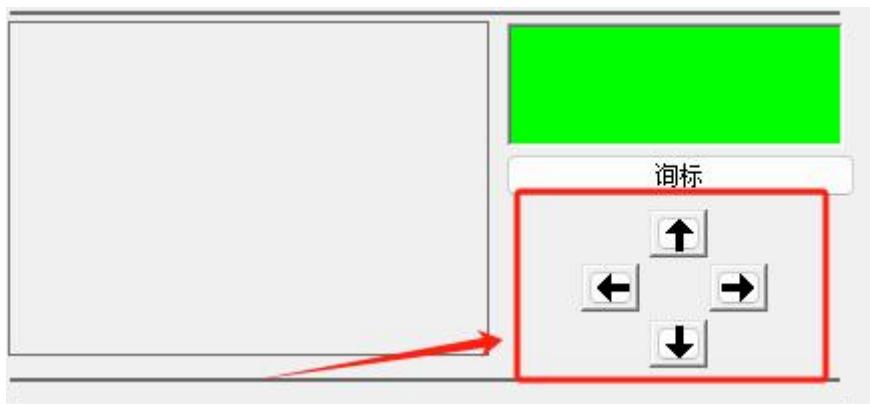
The automatically added file die-cutting job number is 10000.

If setting the number of cut jobs, add the specified number of jobs after the file name. For example, file 001 is cut into 300 jobs (001-B300).

## Chapter 6 Machine operation

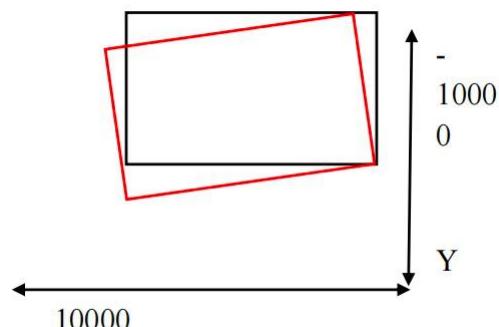
### 6-1 Execute cutting

After sending the file, click the move button on the mouse or keyboard to move the positioning sensor on the cutting system to the innermost black mark. Press the OK key to execute the cutting.

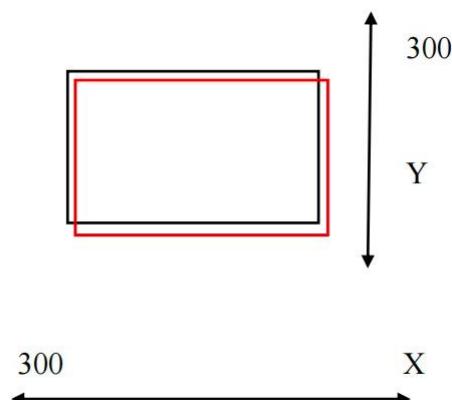


## 6-2 check and adjust the verticality

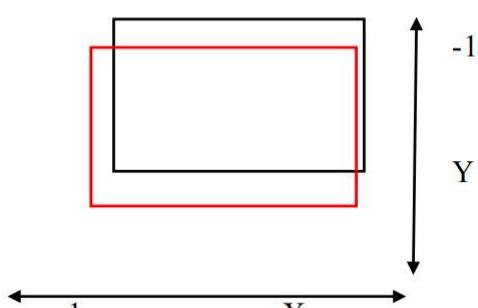
Check the verticality of the cutting path in the X and Y direction, the X and Y cutting position, and the X and Y zoom. If you need to modify the corresponding operation on the panel to modify the correct cutting path as below.



Adjust the X/Y perpendicularity to change the cutting position according to the cutting phenomenon, as shown in the picture.



According to the cutting phenomenon, adjust the X/Y knife compensation to change the cutting position, as shown in the figure. If tracking by CCD, pls adjust in the camera parameter .



According to the cutting phenomenon, adjust the zoom of X/Y in turn, as shown in the figure.

After adjustment, check the cutting quality and change the speed accordingly. Enter the number of jobs you want to cut and the number of jobs with

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positioning intervals on the screen. Click “cut here”, start to work according to operation at 6-1.

### 6-3 start to use waste removal function



Pause to stop working. Close the rewinder speed control button and install the waste roll. Lock the stopper according to its position and peel off the back paper. Using waste top paper to stick onto the waste material and extend it onto the waste roll. Open the rewinder speed control to continue working.

### 6-4 slitter setting



Press pause to stop working . Move the slitters and lock them at the right position. Release the slitters. Continue working by clicking it.

# Chapter 7 Machine maintenance

## 7-1 Maintenance

Check the media feeding system parts every day before use. If there is some dust or debris, please clean shaft, roller and board with alcohol and gasoline, You must do the basic clean, the clean rate is depends on your use and the media. Dust will be blocking the die-cutting system moving. Caused the moving incorrect, even there is risk and effect the life-span of equipment.

## 7-2 General cleaning and maintenance procedures

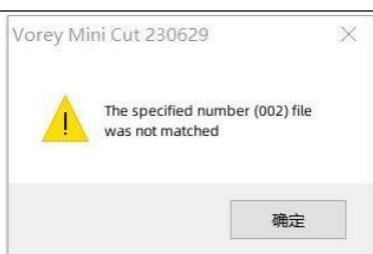
1. Confirm machine is power off, and plug is out of socket.
2. Clean the dust and debris inside of machine.
3. Wipe the board with glass cleaner, use soft cloth to wipe dry.

Wipe all the slide rails of the motion system with alcohol and cotton cloth. The rollers must be kept clean, because dust will block the rim and cause the wear of the rollers, making the movement system uneven. After the slide rail is cleaned, use a clean cotton swab moistened with alcohol against the roller, and move the motion system with the other hand to rotate the roller while cleaning the roller and the slide rail.

## 7-3 Trouble shootings

### 7-3-1 machine display error

Error messages	Issues	Solutions
	Failure to connect camera.	1.Check the camera USB cable connection; 2.Refer to 4-2-4 to choose camera
	failure connection between PC and host network.	1.Check network connection 2.Refer to 4-2-3 to set the PC network IP 3.Refer to 4-2-4 to set the machine network IP.

	<p>Failure connection to camera.</p>	<p>1. Refer to 4-2-4 and choose Camera. 2. Check the camera usb cable.</p>
	<p>Refer to the tracking result on the up right Conner             -101= Failure to find black mark            -102= Find several black marks            -201=Number recognition failure</p>	<p>-101:            1. Adjusting the brightness of the exposure light.            2.The first compensation value for the inquiry is incorrect, refer to 5-2-11.            3.Poor quality of black mark.            -102:            Please print black marks as required, refer to 5-2-1.            -201:            1. printing blurry of numbers.            2.Adjusting the brightness of the exposure light            -202: Please print black marks as required, refer to 5-2-1.            -203: Please print black marks as required, refer to 5-2-1.</p>
	<p>Communication failure with motherboard.</p>	<p>1. The machine status is not on the main interface            2. Refer to 4-2-3 to set the PC network IP.            3. Refer to 4-2-4 to set the machine network IP.</p>
	<p>Unable to find corresponding File.</p>	<p>Load the corresponding die-cutting file.</p>
	<p>The responding machine is not connected.</p>	<p>1. Check the network connection line .            2. Set PC network IP as per 4-2-3.            3.Set machine network IP as per 4-2-4.</p>

Failure self-checking	Communication error between panel and motherboard.	Turn off power and restart. If not working properly, pls contact VICUT after-sales service.
Y axis motor -X2	Y-axis motor or Y-axis reset sensor malfunction.	Detect and reset the sensor, touch the top of the sensor with metal, and the light will light up to indicate that it is normal. Check if the position of the cover plate has shifted and adjust the position. If it cannot function properly: replace the sensor or check the motor circuit.
Blade 2 distance motor X13	Blade 2 distance motor failure or sensor failure.	Check the sensor. Using a metal tool to detect the sensor , It is normal if it lights, then pls check if the the position of the obstruction film shifted. If yes , pls adjust the position . If abnormal, replace sensor or check the motor circuit.
Blade 3 motor X14	Blade 3 distance motor failure or reset sensor failure.	Check the sensor. Using a metal tool to detect the sensor , It is normal if it lights, then pls check if the the position of the obstruction film shifted . If yes , pls adjust the position . If abnormal , replace sensor or check the motor circuit.
Blade 4 motor X15	Blade 4 distance motor failure or reset sensor failure.	Check the sensor. Using a metal tool to detect the sensor , It is normal if it lights, then pls check if the the position of the obstruction film shifted . If yes , pls adjust the position . If abnormal , replace sensor or check the motor circuit.

Machine is locked.	Probation period expires.	Contact VICUT service dpt.or your sales manager.
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## 7-3-2 FAQ of Machine Working Troubleshootings

Phenomenon	Reasons & Solutions
The cutting depth varies, with some areas where the backing paper is already cut through, but some areas where the surface paper is not fully cut.	<ol style="list-style-type: none"> <li>Check the levelness and flatness of the cutting table/mat.</li> <li>The concentricity of the knife holder is poor or there are foreign objects. Replace the knife holder.</li> </ol>
When cutting characters, the sharp corners are raised and not smooth.	<ol style="list-style-type: none"> <li>The blade tip extends too long from the sleeve, please adjust according to regulations.</li> <li>The knife is worn out, just replace the engraving knife.</li> </ol>
The cutting pattern deforms.	<ol style="list-style-type: none"> <li>The blade pressure is too high, or the blade tip is too long, or the tabletop is too dirty (with residual adhesive) or the adhesive is too soft, causing excessive resistance to the forward and backward movement of the compressed part of the paper surface and deformation.</li> <li>Increase the delay and compensation of the landing blade appropriately.</li> </ol>
The cutting pattern unsealed.	It is not sealed, which is caused by the software closing compensation value being too small.
Wrong cutting or cutting in disorder.	<ol style="list-style-type: none"> <li>Your file is not set correctly in software.</li> <li>The file was interrupted before it was fully output.</li> <li>The software is damaged or the computer is infected with a virus.</li> <li>Some electric welding close to machine, or wireless equipment and other objects interfere this machine.</li> </ol>

Media feeding deviation.	<p>1. The media was not properly placed at the beginning.      2. The cutting table surface is too dirty or has residual glue, which causes unbalanced negative forces on both sides of the paper during movement, leading to gradual deviation and causing left and right deviation.      3. The pressure at both ends of the feeding rubber roller and the laminating rubber roller is uneven or deformed, and the pressure at one end of the rubber roller is too small, making the paper prone to deviation due to external forces.</p>
Track mark is not correct.	<p>1. The color of black mark and the paper is very similar, and the sensitivity of the coordinate positioning color mark sensor is reduced. Please adjust the sensitivity of sensor.      2. The media sides is not smooth; material edges upturned, can't track mark correctly.</p>
Rewinding incorrect.	<p>1. Media installation is incorrect .      2. The cutting table surface is too dirty or has residual glue, which causes unbalanced negative forces on both sides of the paper during movement, leading to gradual deviation and causing left and right deviation.      3. The pressure of the Main feeding roller and laminating roller are unbalance.      4. Uneven grinding force of the rewinding shaft, adjust it .</p>
Waste removing incorrect or not smooth.	<p>1.Paper is not cut through      2.Label shape is not closed.      3.Adjust the rotating speed of the waste removal shaft and its grinding force . High rotating speed helps to remove waste and high grinding force causes waste breaking.</p>

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## Chapter 8 Warranty

Anhui William(VICUT) CNC Technology Co., Ltd. (“VICUT” hereunder) will provide reasonable monitor and preventive measures to make sure that users can use qualified products. Under any circumstances, Vicut's responsibilities are limited to the contract price and it will not be responsible for the other parts beyond the contract price.

### **Warranty period:**

1. The warranty period is within 12 months from installation date.
2. When users receive the product, please inform Vicut immediately if you find any product material or workmanship defect, and Vicut will decide to repair or replace parts based on detailed condition.
3. The cost to repair or replace the defective components in the warranty period is borne by Vicut.
4. Within the warranty period, users shall follow operation guidance strictly to make relevant operations.
5. Vicut does not bear warranty responsibilities to the consequences caused by the following situations:
  - 1) Incorrect installation, storage, use or operation of product.
  - 2) Change or refit the product arbitrarily without consent from Vicut.
  - 3) Product repair done by service personnel without Vicut training.
  - 4) Using accessories or consumables supplied by a third party not certified by Vicut.

The above mentioned 12 months warranty period does not apply to wearing parts and consumables as following:

Rubber roller, slitting roller.

Cutting holder, blade, slitting unit and razor. Rubber belt.

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