



# YINK Vertical Plotter Installation and Operation Manual

## Models YK-903X

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## **Precautions for Installing and Using the Film Cutting Machine**



## WARNING

Improper operation may cause personal injury or equipment damage.

## CAUTION

Incorrect use may lead to injury or property damage.

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## Symbol Guide



A triangle with a symbol inside indicates an important warning or caution that must be strictly observed.  
For example: “Caution – Risk of Electric Shock”.



A circle with a symbol inside indicates a prohibited action.  
For example: “Do Not Disassemble”.



## WARNING

## Important Safety Notices



Do not use a power source that does not match the rated voltage.  
Using an incorrect power supply may cause fire or electric shock.



If the machine emits smoke, strange odors, or unusual noises, stop using it immediately.  
Continued use under abnormal conditions may result in fire or electric shock.



Do not unplug the power cord while the machine is powered on.  
This may damage internal components.



Always ensure proper grounding of the machine.  
Lack of grounding can result in electric shock or machine malfunction.



Never disassemble, repair, or modify the machine on your own.  
This may cause injury, electric shock, or fire.



## CAUTION

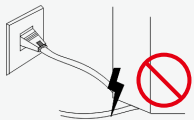
## Usage Guidelines



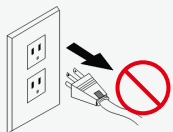
Do not allow liquids or metal objects to enter the machine.  
This may cause internal short circuits or fire.



Avoid touching the blade tip with your fingers.  
This may cause cuts or injury.



Do not damage or arbitrarily replace the original power cord.  
Avoid excessive bending, pulling, bundling, or placing heavy objects on the cord.  
Damaged cords can lead to electric shock or fire.



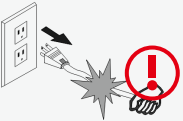
Unplug the machine if not in use for an extended period.  
This reduces the risk of fire.



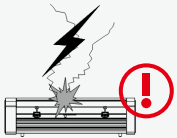
Do not place your hands on the main drive shaft during operation. This can cause serious injury.



Make sure the machine is placed on a stable and level surface. Otherwise, it may fall and cause injury.



When unplugging the power cord, always hold the plug — never pull the cable. Pulling may damage the cord and lead to fire or electric shock.



Do not use the machine during thunderstorms. It may be damaged by lightning strikes.



Do not forcefully move or pull the carriage assembly. This may damage the main control board.



## **Accessories Checklist**

No.	Item	Quantity	Remarks
1	Power Cable	1 piece	/
2	USB Cable	1 piece	/
3	Mounting Screws	1 pack	/
4	Blade Holder Assembly	1 set	Pre-installed on the machine
5	Blades	3 pcs	1 installed in the machine
6	User Manual	1 sheet	/
7	Certificate of Quality	1 sheet	/
8	Warranty Card	1 sheet	/

▲ Please check the following accessories after unpacking the machine. If any item is missing, contact your dealer or our company immediately.



## **Machine Installation**

# 3.1

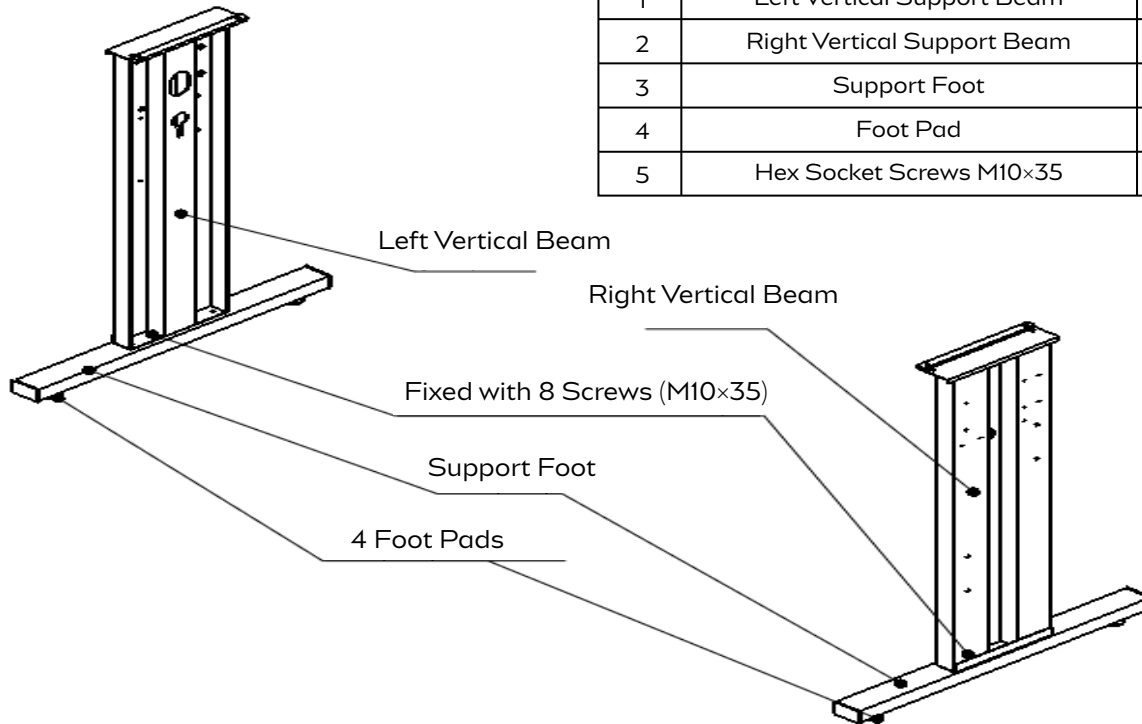
## Installation of YK-903X Main Unit and Stand

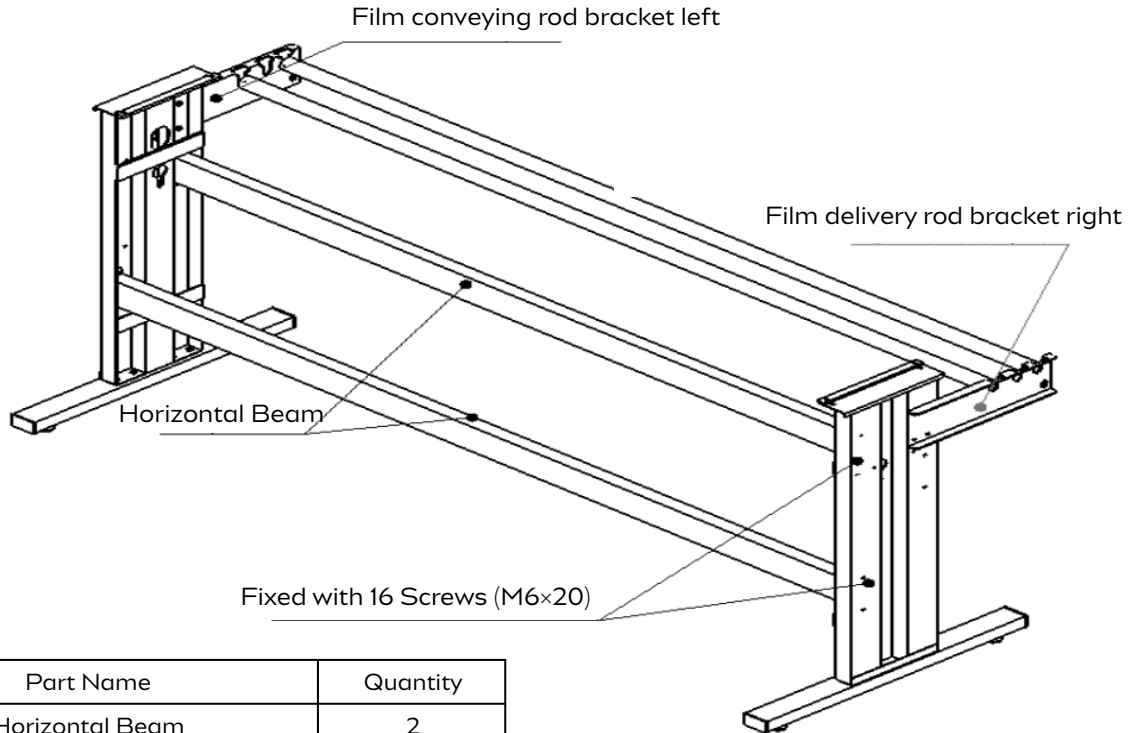
### List of Components

No.	Name	Quantity	Unit
1	Main Unit	1	Set
2	Right Vertical Support Beam	1	pc
3	Left Vertical Support Beam	1	pc
4	Horizontal Beam	2	pcs
5	Support Foot	2	pcs
6	Foot Pads	4	pcs
7	Screws	2	packs
8	Right Film Feeding Shaft Bracket	1	pc
9	Left Film Feeding Rod Bracket	1	pc
10	Film conveyor rod	2	pcs
11	Left Telescopic Fabric Connector Bracket	2	pcs
12	Right Telescopic Fabric Connector Bracket	2	pcs
13	Hand-tightening Nuts	4	sets
14	Fabric Basket Panel	1	pc
15	Long Fabric Support Rod	2	pcs
16	Short Fabric Support Rod	1	pc

## 3.1.1 Bracket Installation

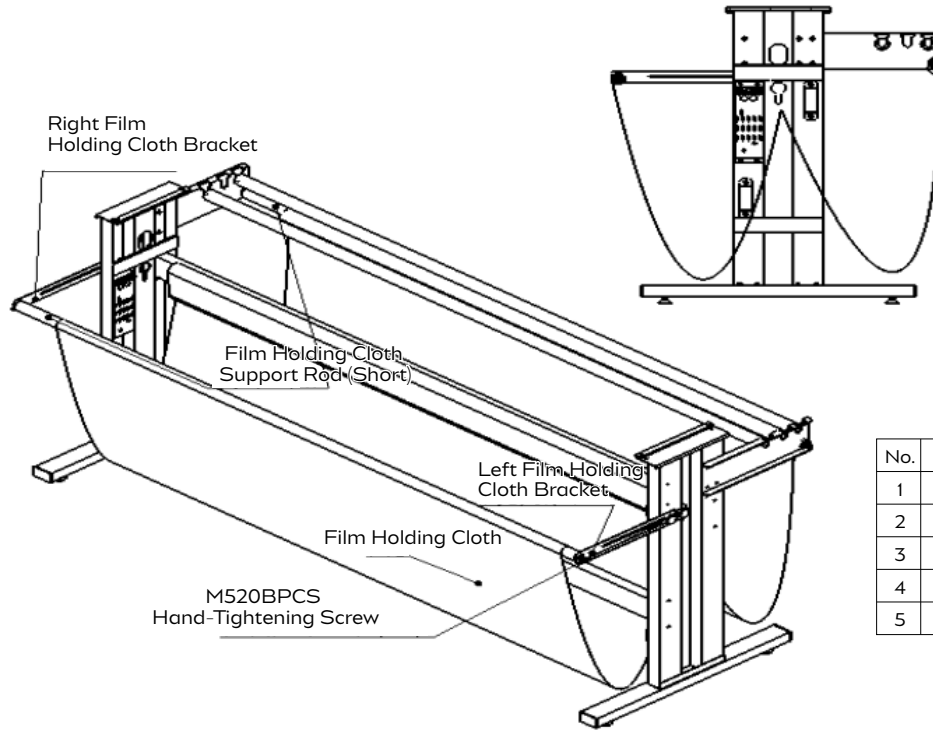
No.	Part Name	Quantity
1	Left Vertical Support Beam	1
2	Right Vertical Support Beam	1
3	Support Foot	2
4	Foot Pad	4
5	Hex Socket Screws M10×35	8





No.	Part Name	Quantity
1	Horizontal Beam	2
2	Film conveying rod bracket left	1
3	Film delivery rod bracket right	1
4	Hex Socket Screws M6x20	16

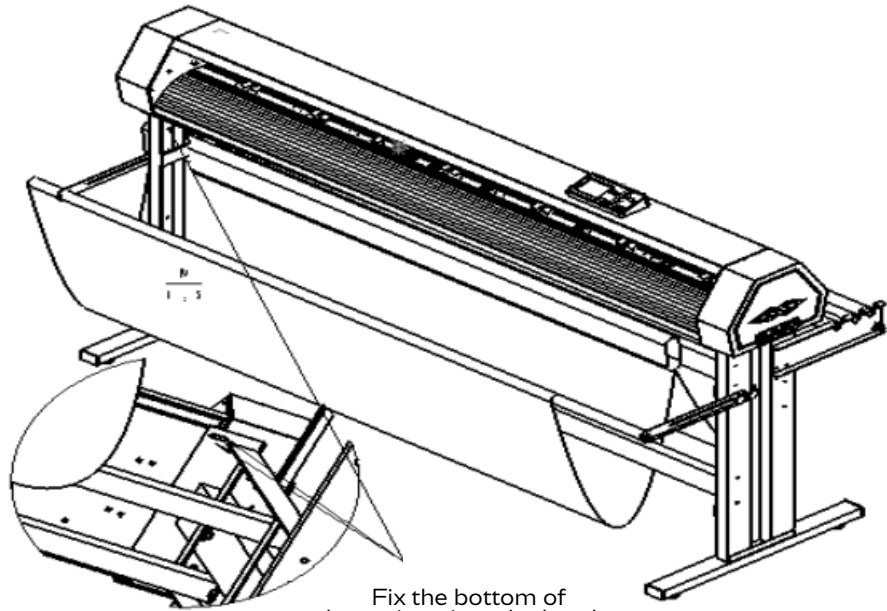
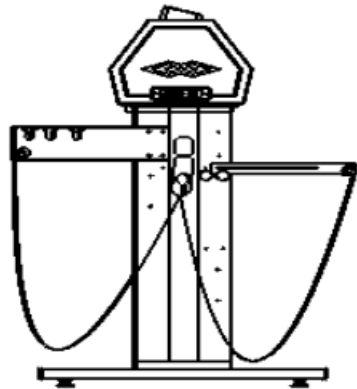
## 3.1.2 Installation of Fabric Basket



No.	Name	Quantity
1	Left Film Holding Cloth Bracket	1
2	Right Film Holding Cloth Bracket	1
3	M4*20 Hand-Tightening Screw	4
4	Film Holding Cloth	1
5	Long Film Holding Cloth Support Rod	2

### 3.1.3 Installation of Main Unit

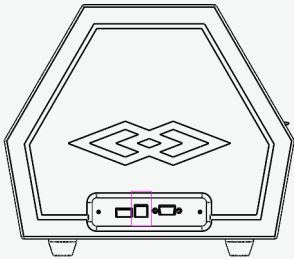
No.	Name	Quantity
1	Main Unit	1
2	M5*10 Screw	4



Fix the bottom of  
the main unit to the bracket

# 3.2

## Installation and Connection

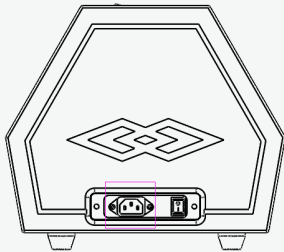


### 3.2.1

Place the cutting machine on a stable and spacious surface.

### 3.2.2

Connect the plotter to the computer using a USB cable.



### 3.2.3

Check the power voltage and ensure the ground wire is properly grounded. Connect the power only after confirming everything is correct.

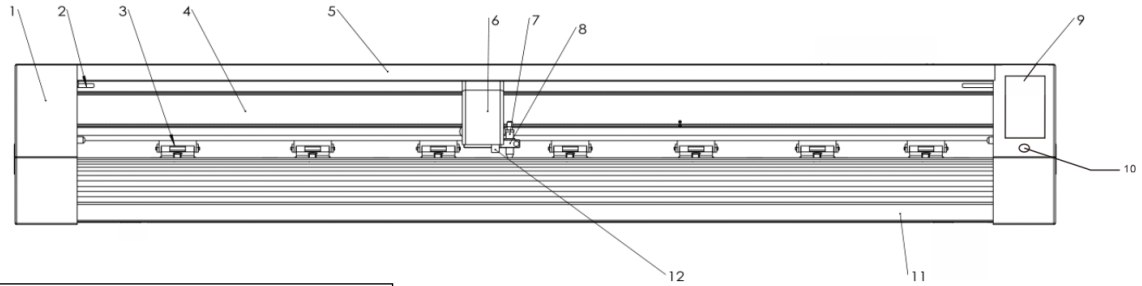


## **Detailed Description**

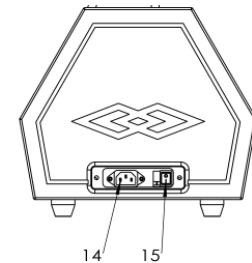
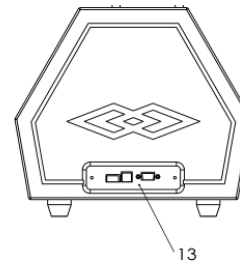
# 4.1

## Component Names and Functions

### 4.1.1 Appearance Diagram



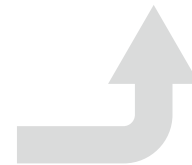
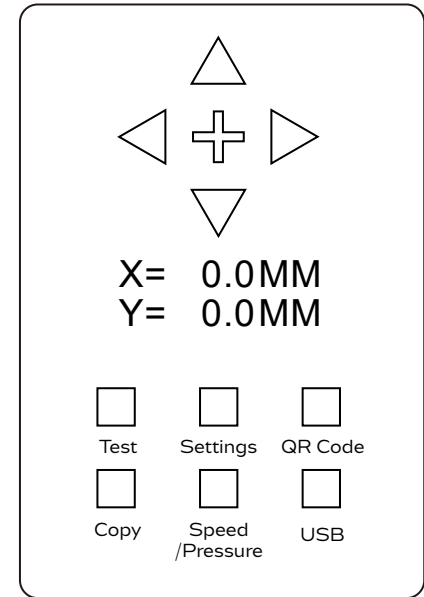
1	Left Machine Cover
2	Photoelectric Coupler Block Plate
3	Pressure Roller
4	Beam
5	Upper Cover Plate
6	Blade Module
7	Blade Holder Assembly
8	Blade Clamp & Blade Holder Locking Screw
9	Display Screen
10	Reset Button
11	Base Plate
12	Camera (Optional, contact customer service for details)
13	Interface Board
14	Power Socket
15	Power Switch
16	Suction Control Knob



## 4.1.2 Buttons

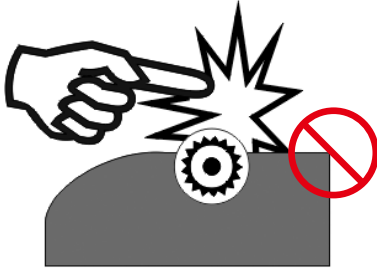
### Button Definitions:

1	Arrow keys	Press left/right to move the blade module horizontally; press up/down to move the backward.
2	"+" key	Confirm and save button.
3	X = 0.0 mm	Displays the horizontal movement distance of the blade module.
4	Y = 0.0 mm	Displays the forward/backward movement distance of the film.
5	Test	When adjusting the blade tip length during setup, press this key to automatically cut a 20×20 mm square.
6	Settings	Opens the device parameter settings interface. Factory settings are preconfigured; no manual setup is required.
7	QR Code	Device settings interface. Factory settings are preconfigured; no manual setup is required.
8	Copy	Device settings interface. Factory settings are preconfigured; no manual setup is required.
9	Speed/Pressure	Opens the speed and pressure interface for adjusting cutting speed and pressure.
10	USB	Opens the contents of the inserted USB drive for cutting.



# 4.2

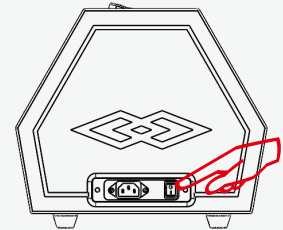
## Basic Operation



When powering on, make sure to keep your hands and any other objects away from the spindle and cutting head module or other moving parts, or serious injury may occur.

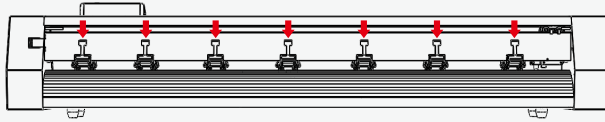
### 4.2.1 Power On

- 1 Check the power shape, it should be in the OFF (0) position.
- 2 Insert the power cable plug into the main power socket, press the power switch on the left side.



## 4.2.2 Installing the Cutting Media

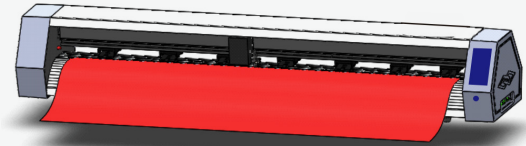
1



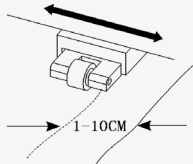
Push down the pressure roller lever on the back of the machine so the roller presses firmly onto the material.

2

Insert the media into the gap between the pressure roller and the main shaft, and pull out an appropriate amount from the front of the machine.



3



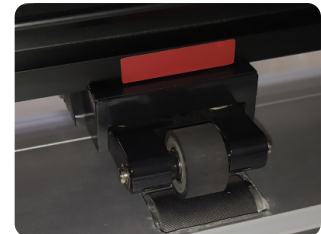
Adjust the left and right positions of the pressure rollers according to the width of the media. The minimum distance between the roller and the edge of the media should be about 4 cm to ensure proper film output.

4

Lift the pressure roller lever to lower the rollers and press the film securely. At least two pressure rollers must be used.

5

The pressure rollers must be positioned precisely in the center of the metal pins.



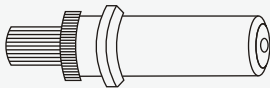
# 4.3

## Tool Installation

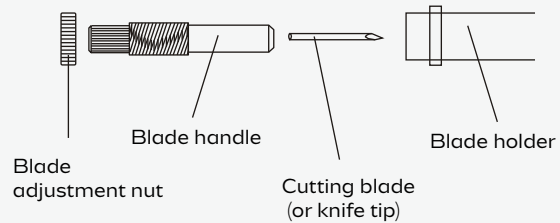


Do not touch the blade tip with your fingers.  
This may cause finger injuries and dull the blade.

**4.3.1** Install the cutting blade into the rotary cutter.  
The blade and the cutter are shown in the diagram below.

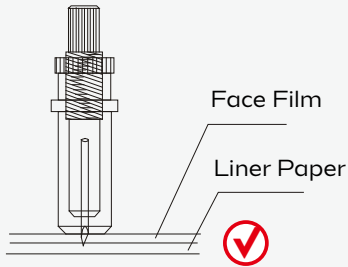


External view

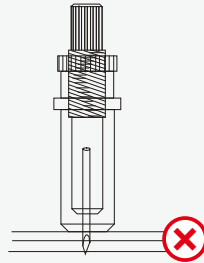


Exploded view

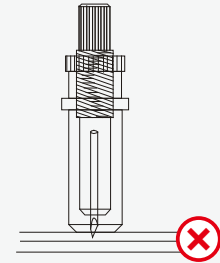
## 4.3.2 Depending on the cutting media, the length of the blade tip must be adjusted accordingly.



Correct



Blade Tip Too Long



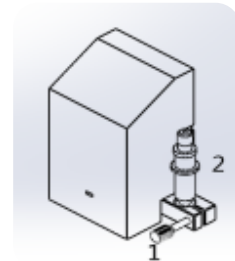
Blade Tip Too Short



The quality of the cutting blade directly affects the cutting precision and the machine's lifespan. For optimal performance, please use officially approved blades recommended by our company. Do not use low-quality blades, as they may damage the blade holder.

## 4.3.3 Blade Assembly Installation

- 1 Loosen the fixing screw 1 on the blade holder.
- 2 Insert the blade tool 2 with the blade installed into the holder.
- 3 Once the tool reaches the correct position, tighten the fixing screw.



# 4.4

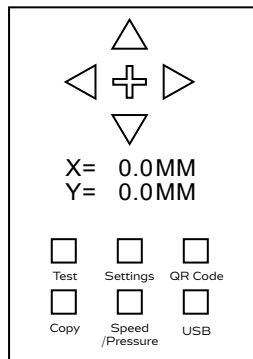
## Function / Parameter Settings



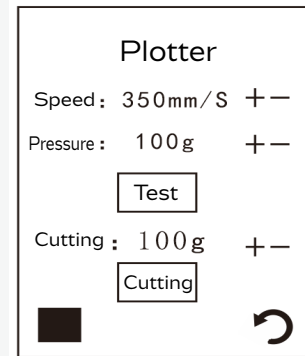
After powering on the device, wait 5 seconds to enter the main screen. In this interface, you can perform self-check tests, pressure tests, online operation, and other functions for the paint protection film cutting machine.

### 4.4.1 Cutting Origin Setting:

On the startup screen, use the arrow keys to adjust the blade position (left/right) and film movement (forward/backward). After positioning, press the center "+" confirmation button to reset the X and Y values: X = 0.0 mm Y = 0.0 mm



Press "Speed/Pressure" Button



## 4.4.2 Speed/Pressure Settings:

On the main screen, press the speed/pressure button to access the setting interface.

### Speed

Refers to the cutting speed of the machine. The default is 350, which can be adjusted as needed. (Note: excessive speed may cause overlapping of cutting paths.)

### Pressure

Refers to the cutting force of the blade. Different material thicknesses require different blade

### Pressures

Thickness 6.5 — pressure 100g   Thickness 7.5 — pressure 120g   Thickness 8.5 — pressure 140g  
(For each unit change in thickness, adjust pressure by  $\pm 20$ g)

## 4.4.3 Blade Tip Length & Pressure Adjustment (Recommended pressure for film cutting: 200–250g):

**1** On the startup screen, press the left arrow key to move the blade to the center of the machine. (Note: first, load material with width of 1520mm and length over 200mm onto the machine.)

**2** Press the speed/pressure button to enter the adjustment screen. Use the “+” and “-” buttons to set the appropriate pressure based on material thickness.

3 Press “Test Cut” — the blade will cut a 20×20 mm square on the material.

4 Check the cutting result. If the blade cuts through too deep, shorten the blade and test again. If it doesn’t cut enough, lengthen the blade. Repeat until the film peels easily, without cutting through the backing layer.

5 Once the center is properly set, return to the main screen, use left/right keys to move the blade to both ends of the material, and perform test cuts. If the cut on the sides is worse than the center, adjust the pressure slightly until it’s balanced.



Note

Pressure difference between center and ends should not exceed 10 units. If it does, please contact the manufacturer for further analysis.



## CAUTION

**Parameters not mentioned in the manual are factory-calibrated — do not modify them.**



## **Machine Parameters**

# Technical Specifications

Specification	Models YK-903X
Mainboard	128-bit servo dual-control intelligent chip
Control Panel	3.5-inch full touch high-definition mobile phone display screen
Drive System	Imported dual silent servo system
Film Feeding Mechanism	High precision imported integrated steel spindles
Origin Positioning	Arbitrary point positioning origin contour cutting
Max Media Width	1650mm
Max Cutting Width	1550mm
Max Cutting Speed	800mm/s
Max Cutting Length	Infinite length

Max Cutting Thickness	1.0mm
Cutting Force	0–500g (digitally adjustable)
Mechanical Precision	0.01 mm
Suction Power	60 CFM – 6-stage – 18.8/m <sup>2</sup>
Plotting Commands	DM-PL / HP-GL (auto detection)
Interface	USB2.0/U storage card
Power Supply	AC110V/220V±10%, 50–60Hz
Power Consumption	< 350W
Operating Environment	Temperature: +5°C to +35°C; Relative Humidity: 30%–70%
Machine Dimensions	2000×1100×1300mm
Shipping Weight	92kg