

# Content

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Flexible Feeding System

# Advantage

## Versatility, Flexibility and Applicability

It is suitable for arranging and loading 99% of small parts and components in automated production, especially for the loading of thin sheets, soft rubber, and odd-shaped parts that cannot be achieved with traditional vibrating plates.

## The vibration is coordinated and smooth to ensure that the product is not damaged

It is driven by a multi-voice coil motor, which can control the uniform and coordinated movement of the product in multiple directions. The product is in gentle contact with the product, minimizing surface damage and eliminating the risk of material jamming.

## Simple HMI, Easy for Adjustment

The flexible feeding system is equipped with a 7-inch touch screen to adjust motion action parameters, action combinations, and vibration time configuration. The system provides 11 motion modes and can flexibly configure the vibration parameters of different products.

## The plates can be customized according to different products

The material of the tray can be selected from white or black POM, PVC, FDA, ESD and other materials according to different product characteristics. The structure can also be customized and designed. And holes, grooving, and wire drawing can be made according to the special-shaped state of the material.

## Efficient, Quick and Accurate Vibration Response

The response time of the vibration plate voice coil motor reaches the millisecond level. It can complete the vibration dispersion action in 100-1000MS.

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Flexible Feeding System

# Application

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## Flexible circuit board industry

Flexible circuit board, also known as soft circuit board, referred to as FPC. It is popular for its excellent features such as light weight, thin thickness, and can be bent and folded freely. It is widely used in commercial electronic equipment, mobile phones, tablets, laptops, cameras, camcorders, CD-ROMs, watches, computers, cameras, medical in various electronic products and equipment such as instruments and equipment. When customers use FPC for automated assembly production, automatic loading of FPC is a difficult point due to its soft material and irregular shape, which directly affects the improvement of the customer's factory automation level. Using a flexible vibration system to load FPC products can effectively solve the problems of soft material separation and loading. And for medium and large FPC products, a flexible vibrating plate can be used to effectively vibrate and turn over the material for position.



Flexible Feeding System

# Application

## Thin parts

In automated production, in order to achieve higher production efficiency, many thin materials are loaded using traditional vibrating plates. Since the traditional vibration plate uses structural technology to control the loading, it is easy to occur lamination during the sheet loading process and causing material jams. The flexible vibration system keeps the loading process of thin sheet parts smooth and prevents jamming easily. It improves the loading speed and stability, thereby improving production efficiency and reducing production costs.



Flexible Feeding System

# Application

## Special-shaped parts

In industries such as metal processing and injection molding, small special-shaped parts have variable shapes and require many aspects of positive and negative distinctions. The use of traditional vibrating plates for loading special-shaped parts has a great impact, and it is mainly impossible to ensure that the product specifications are consistent. In addition, some products have special shapes and traditional vibrating plates have poor compatibility and cannot be adapted to the compatible use of multiple products. The flexible vibrating plate method is adopted. Since the flexible vibrating plate can automatically turn over, the product with the correct side is selected for stretching through grid positioning, maximizing the It avoids a series of problems encountered by traditional vibration loading, and has good compatibility and strong support.

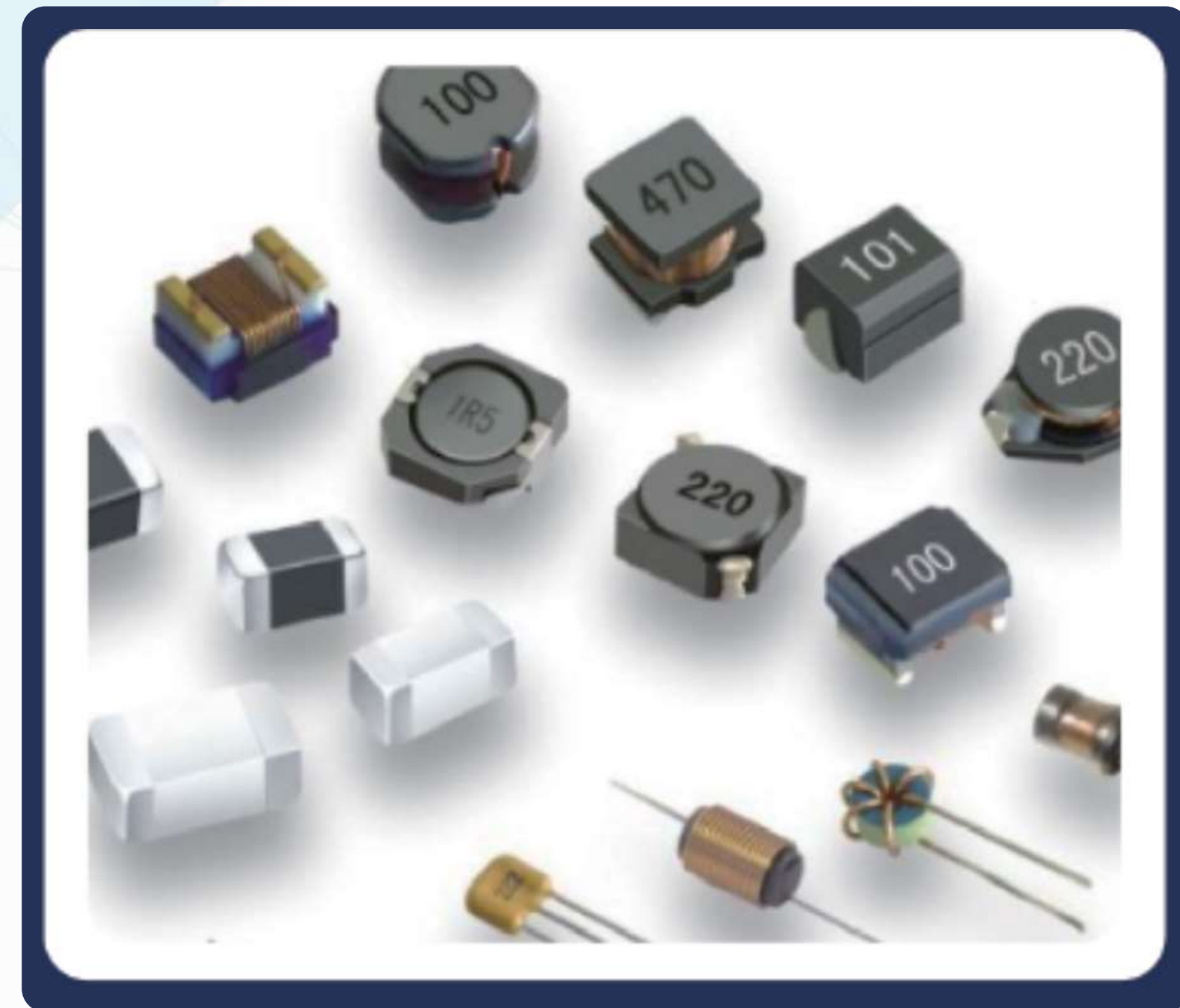


Flexible Feeding System

# Application

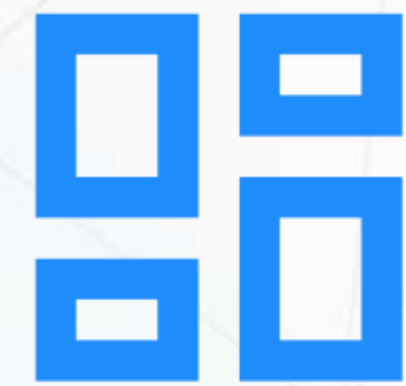
## Electronic component loading

Electronic components include resistors, capacitors, potentiometers, electron tubes, radiators, electromechanical components, connectors, etc. The existing electronic components are loaded using a traditional vibrating feeder, which can only load one type of material at a time. Multiple products cannot be loaded automatically at one time. Therefore, the loading efficiency is low and it cannot meet the existing needs of loading electronic components. Using flexible vibrating feeding feeder can realize rapid switching of multiple products loading. It has strong compatibility and simple operation. It is widely favored in the electronic component taping and pendulum industry.





Flexible Feeding System



# Models



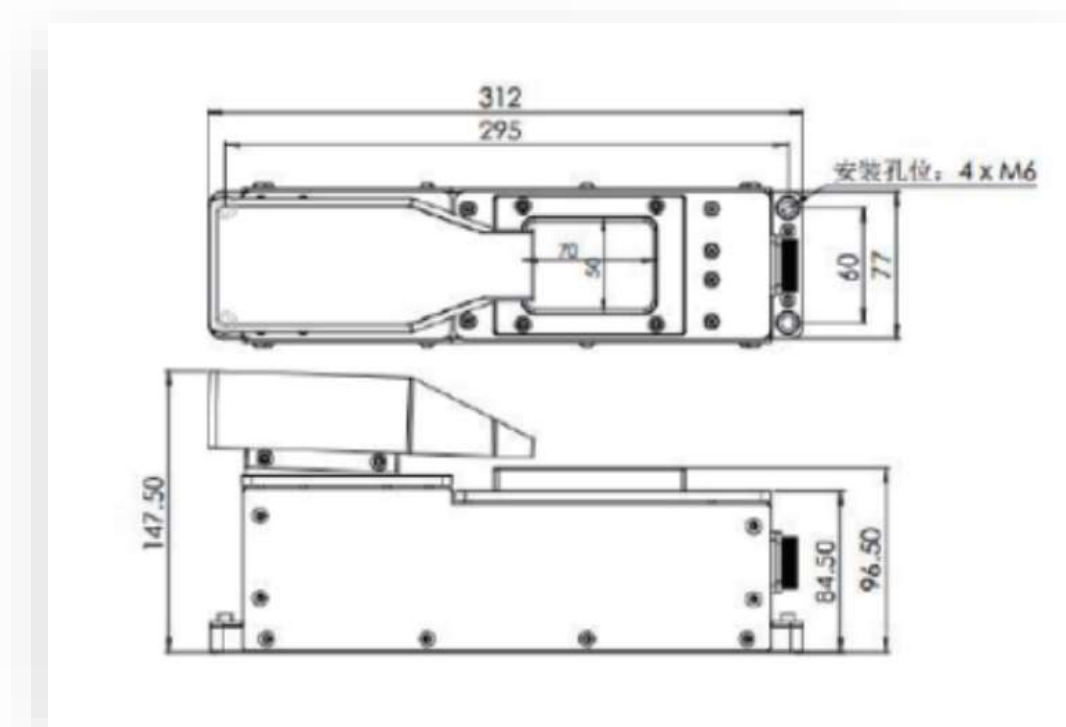
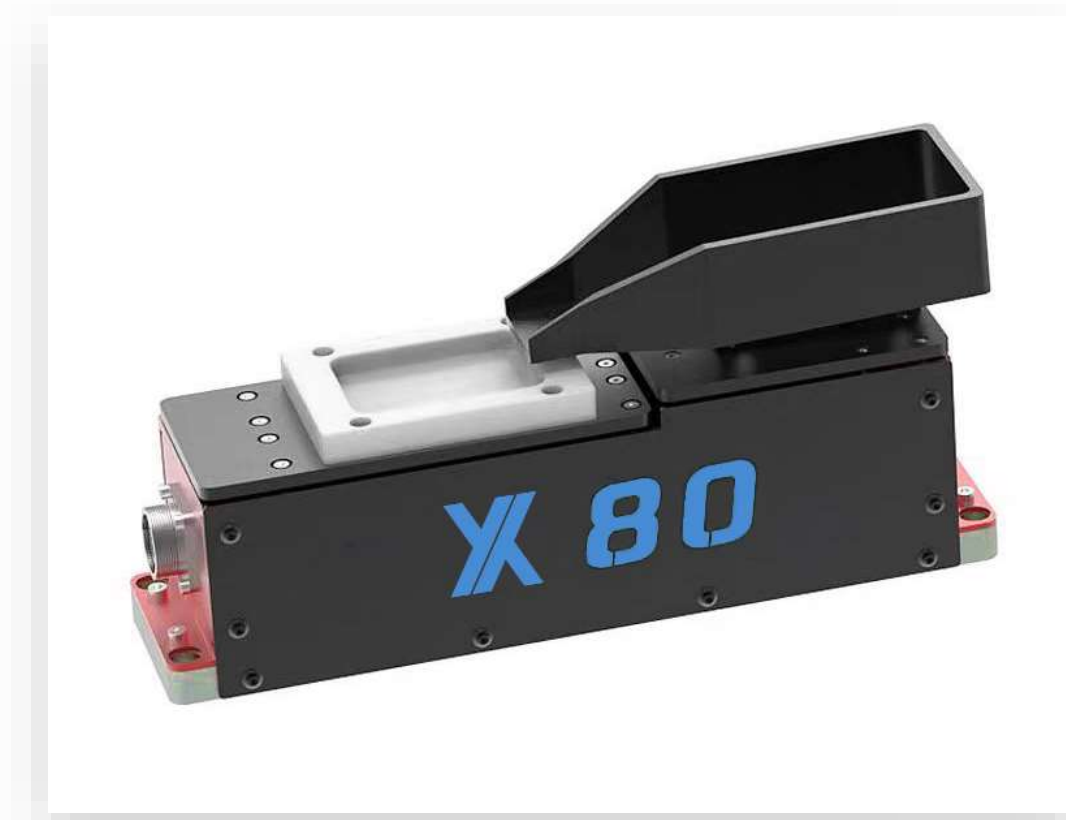
## Flexible Feeding System

# Models

Specifications	Parameters
Overall dimensions (length*width*height)	312*77*147.5MM
Tray size (length*width*depth)	70MM*50MM*10MM
Material bin size (length*width*depth)	170MM*70MM*40MM
Installation hole	295MM*60MM(4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	200G
Tray amplitude	±2MM
Power	12V/80W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	7KG
Compatible material size range	0.5-4MM Various small products
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
Output signal	1: Action bowl action completion signal 2: Reserved port 2.3.4
Communication Interface	RJ45 network port, Using TCP MODBUS communication protocol Equipped with the host computer flexible vibration plate control software for parameter adjustment and storage; TCP MODBUS communication register data definition instructions are provided for secondary development by customers.
Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
Visual positioning system (optional)	Flexible vibrating bowl visual positioning system

## YOUYUN 80

Applicable product range: 0.5-4MM various small products



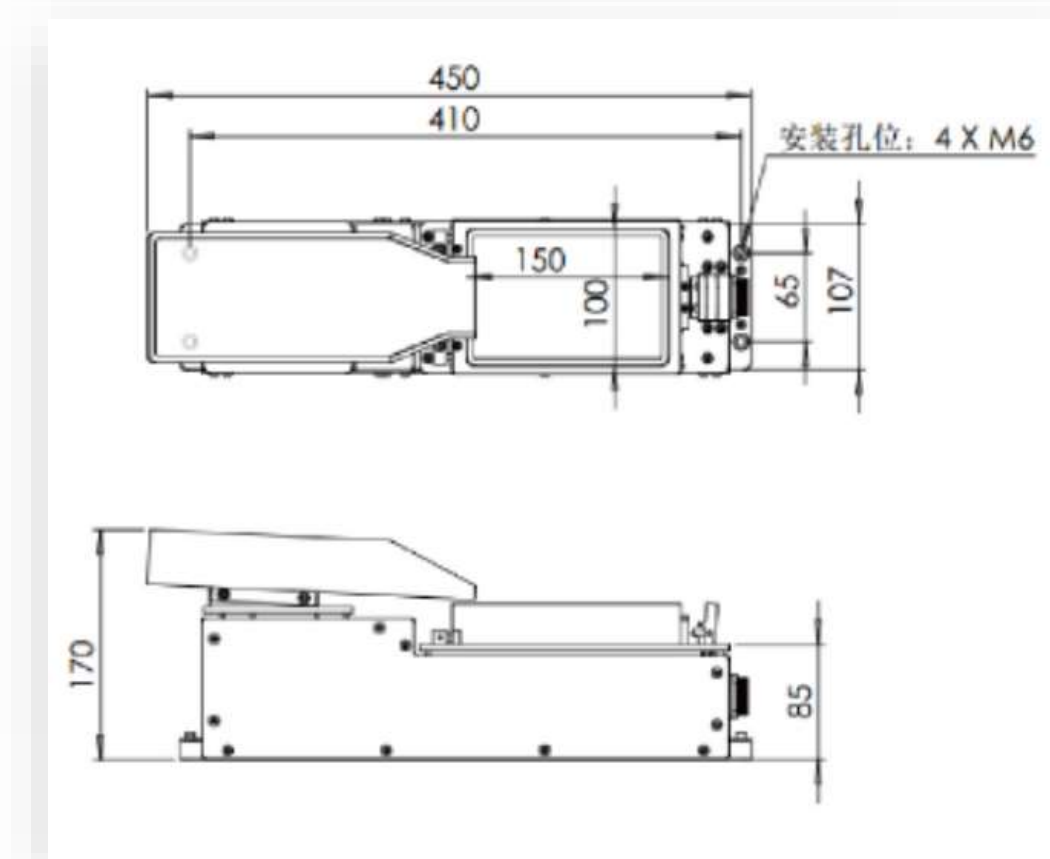
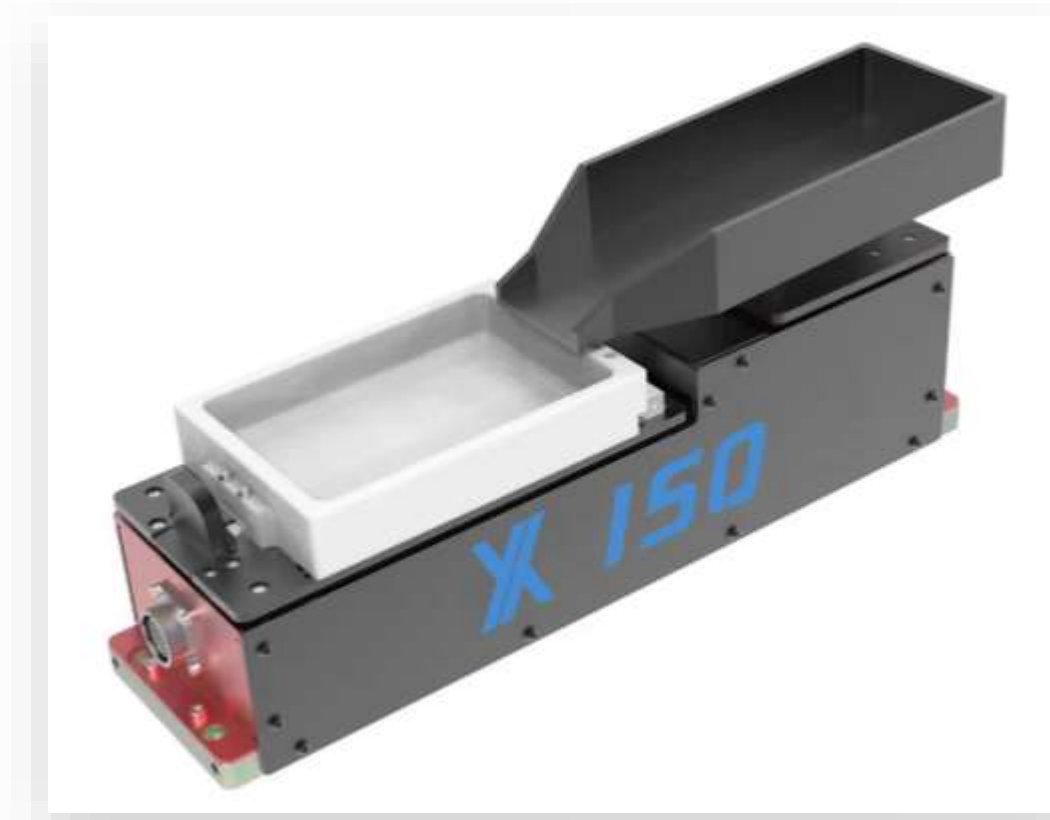
## Flexible Feeding System

# Models

Specifications	Parameters
Overall dimensions (length*width*height)	450*107*170MM
Tray size (length*width*depth)	150MM*100MM*25MM
Material bin size (length*width*depth)	244MM*95MM*40MM
Installation hole	410MM*65MM(4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	200G
Tray amplitude	±2MM
Power	12V/90W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	10KG
Compatible material size range	3-10MM various products or threadlike products within 15MM
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
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Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
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## YOUYUN 150

Applicable product range: 3-10MM various products or threadlike products within 15MM



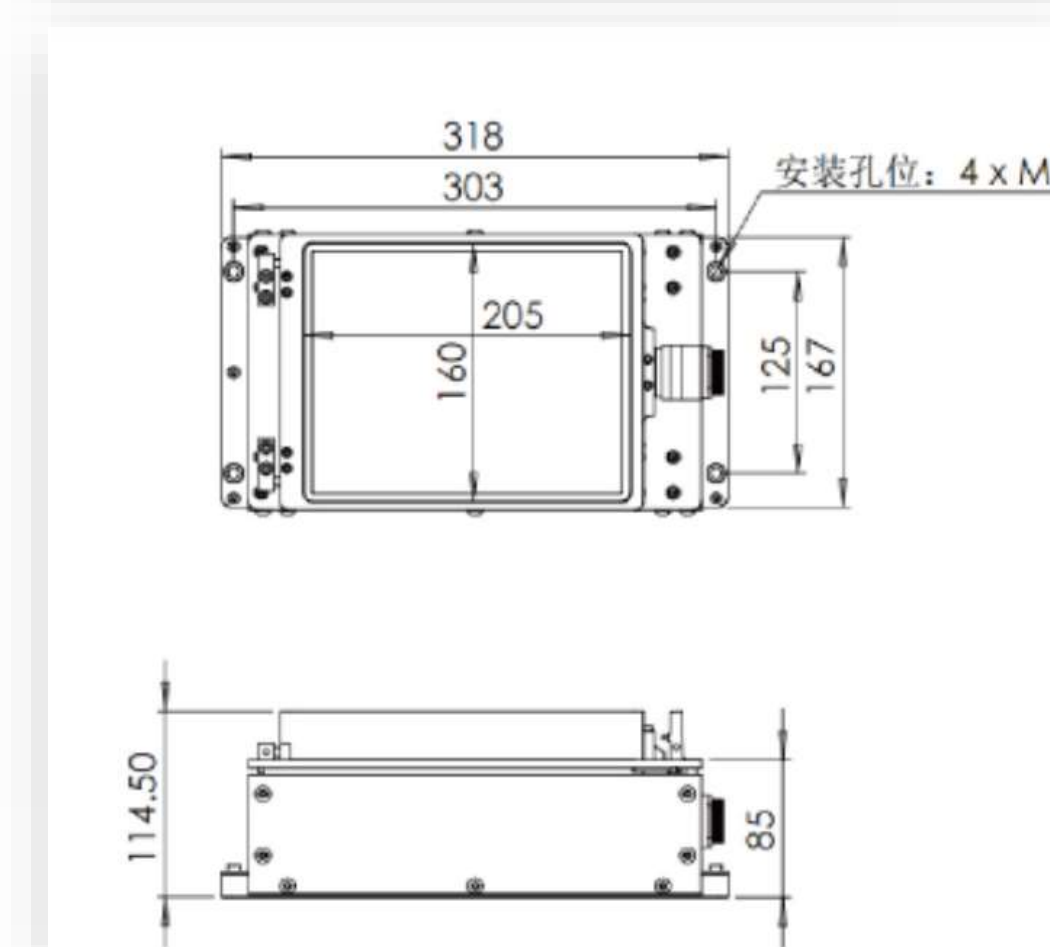
## Flexible Feeding System

# Models

Specifications	Parameters
Overall dimensions (length*width*height)	318MM*167MM*114.5MM
Tray size (length*width*depth)	205MM*160MM*25MM
Installation hole	303MM*125MM(4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	700G
Tray amplitude	±3MM
Power	12V/100W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	10KG
Compatible material size range	3-30MM various products or threadlike products within 50MM
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
Output signal	1: Action bowl action completion signal 2: Reserved port 2.3.4
Communication Interface	RJ45 network port, Using TCP MODBUS communication protocol Equipped with the host computer flexible vibration plate control software for parameter adjustment and storage; TCP MODBUS communication register data definition instructions are provided for secondary development by customers.
Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
Visual positioning system (optional)	Flexible vibrating bowl visual positioning system

## YOUYUN 200

Applicable product range: 3-30MM various products or threadlike products within 50MM



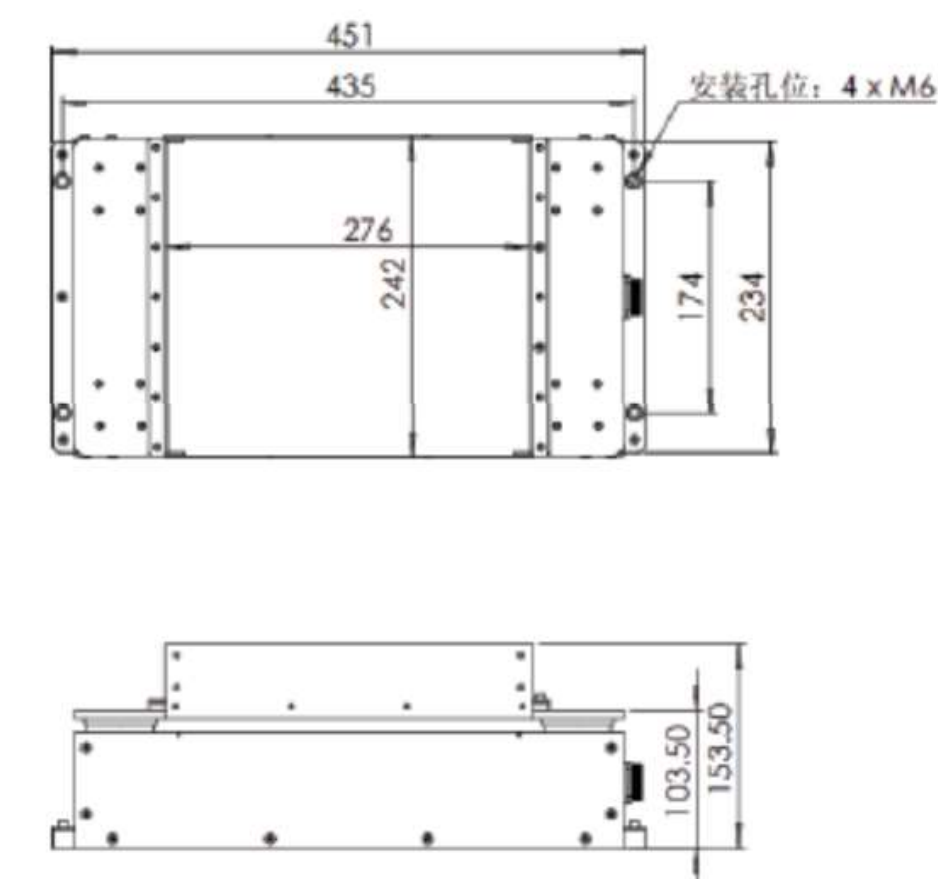
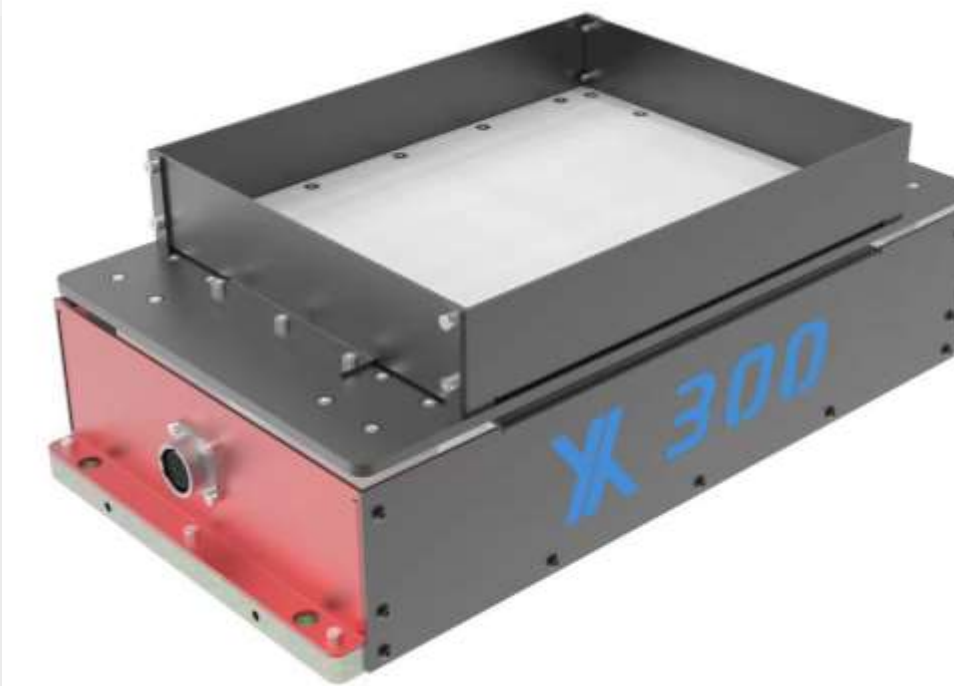
## Flexible Feeding System

# Models

Specifications	Parameters
Overall dimensions (length*width*height)	451MM*234MM*153.5MM
Tray size (length*width*depth)	276MM*242MM*44MM
Installation hole	435MM*174MM(4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	1KG
Tray amplitude	±5MM
Power	12V/100W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	15KG
Compatible material size range	5~50MM various products or threadlike products within 70MM
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
Output signal	1: Action bowl action completion signal 2: Reserved port 2.3.4
Communication Interface	RJ45 network port, Using TCP MODBUS communication protocol Equipped with the host computer flexible vibration plate control software for parameter adjustment and storage; TCP MODBUS communication register data definition instructions are provided for secondary development by customers.
Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
Visual positioning system (optional)	Flexible vibrating bowl visual positioning system

## YOUYUN 300

Applicable product range: 5~50MM various products or threadlike products within 70MM

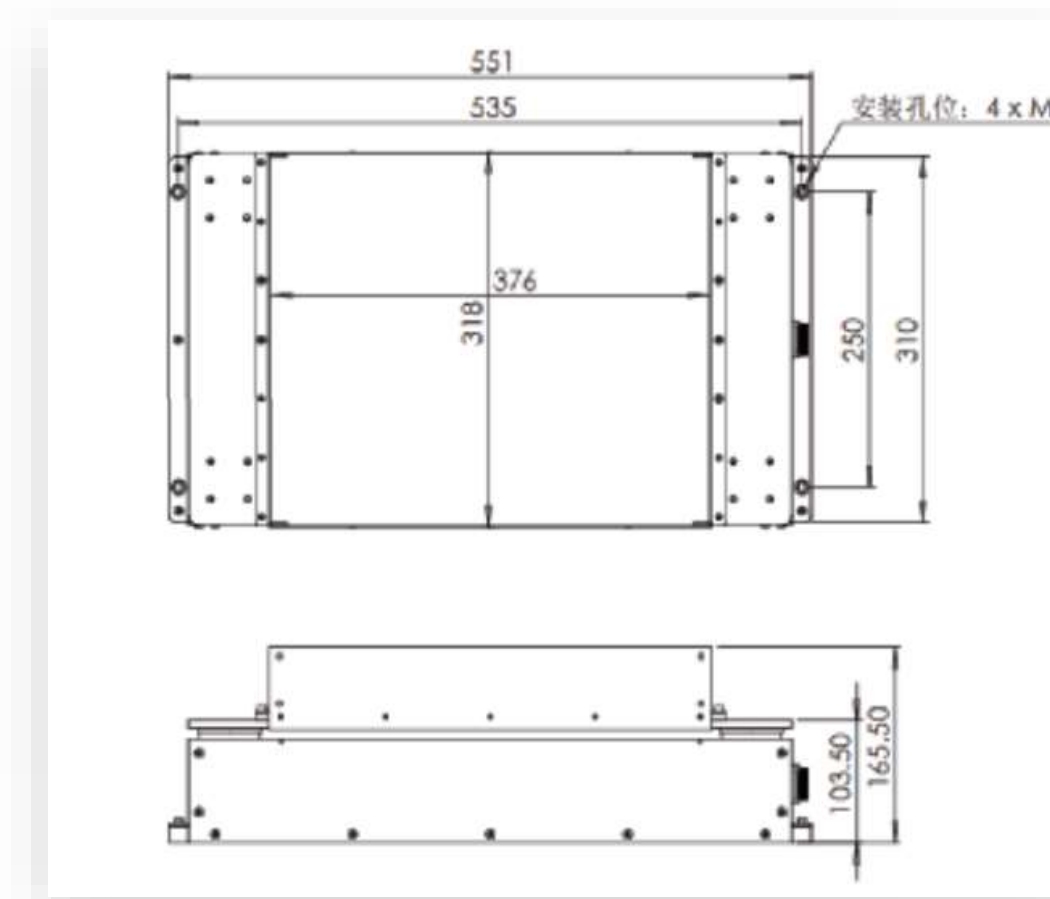
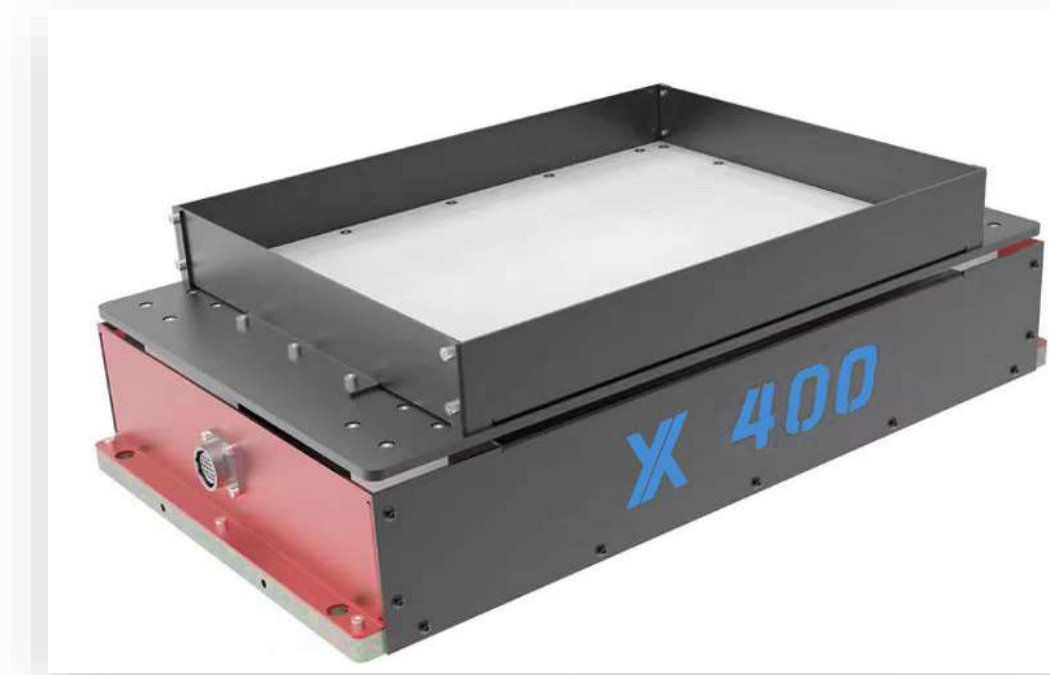


# Flexible Feeding System Models

Specifications	Parameters
Overall dimensions (length*width*height)	551MM*310MM*165.5MM
Tray size (length*width*depth)	376MM*318MM*56MM
Installation hole	535MM*250MM (4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	1.5KG
Tray amplitude	±6MM
Power	12V/120W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	18KG
Compatible material size range	15~80MM various products or threadlike products within 100MM
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
Output signal	1: Action bowl action completion signal 2: Reserved port 2.3.4
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Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
Visual positioning system (optional)	Flexible vibrating bowl visual positioning system

## YOUYUN 400

Applicable product range: 15~80MM various products or threadlike products within 100MM



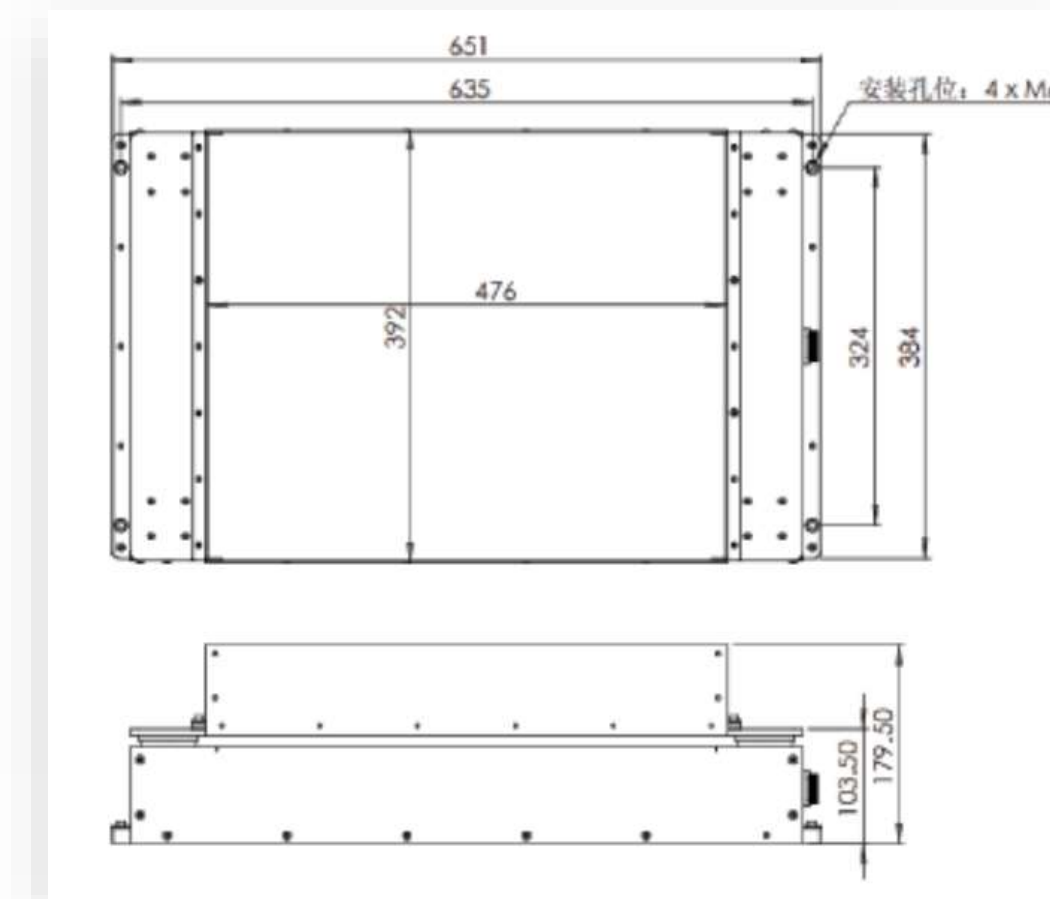
## Flexible Feeding System

# Models

Specifications	Parameters
Overall dimensions (length*width*height)	651MM*384MM*179.5MM
Tray size (length*width*depth)	476MM*392MM*70MM
Installation hole	635MM*324MM(4XM6)
Tray structure	Smooth/brushed/slotted/hole/customized
Tray loading weight	2KG
Tray amplitude	±6MM
Power	12V/150W (Standard configuration 12V switching power supply)
Vibration Feeder Total Weight	22KG
Compatible material size range	20~120 MM various products or threadlike products within 150MM
Backlight (standard)	RGBW Four colors available, default White
Input signal	1: Vibration bowl action combination trigger 1 2: Vibration bowl action combination trigger 2 3: Backlight trigger 4: Action coding trigger (4 port codes control 11 actions) 5: Material bin trigger (used with built-in bin)
Output signal	1: Action bowl action completion signal 2: Reserved port 2.3.4
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Touch screen module (optional)	Optional 7-inch touch screen module for parameter adjustment and storage
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## YOUYUN 500

Applicable product range: 20~120MM various products or threadlike products within 150MM





# Accessories

# Accessories

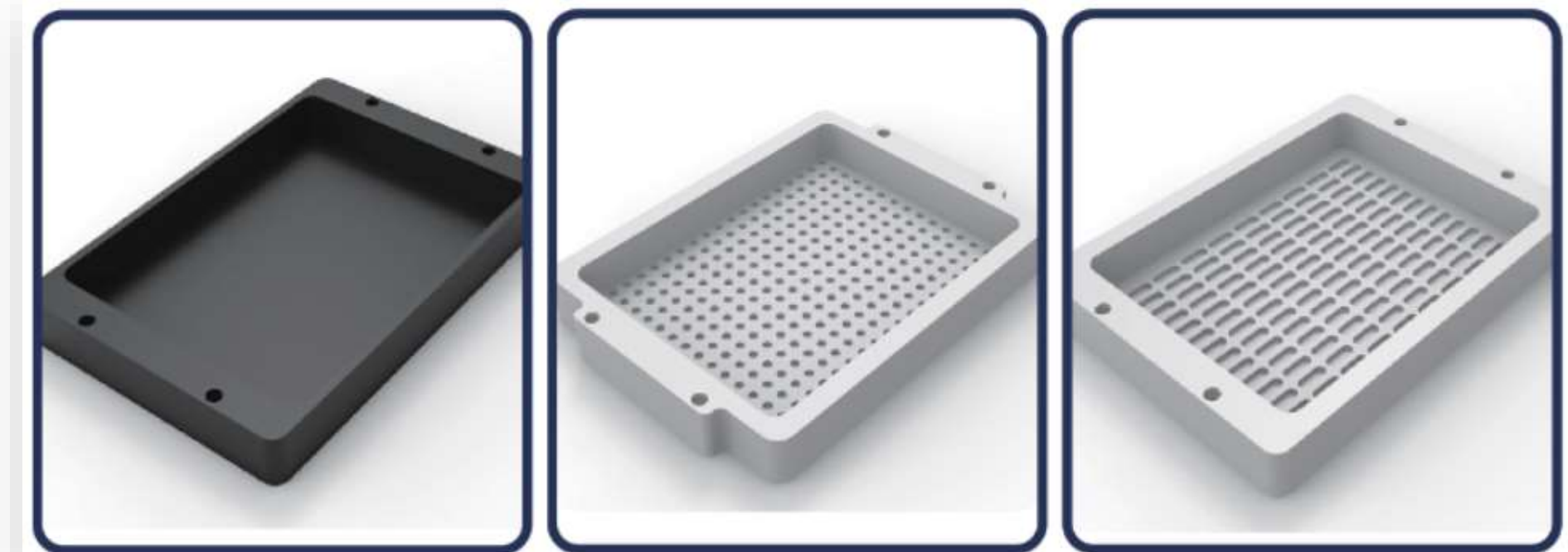
## 1. Forward plate module

LED light panels are embedded around the inside of the plate for low-angle dark field. The LED colors are available in four RGBW colors. Currently, the forward plate module only supports the 150 and 200MM series.



## 2. Customized plate

Including black POM, hole, slotting and other process





# Accessories

## 3.External automatic replenishing bin (2L/5L/10L/20L)

The 80/150MM series with an automatic replenishing bin, and the external automatic replenishing bin is applicable to the 200/300/400/500MM series.



2L



5L



10L

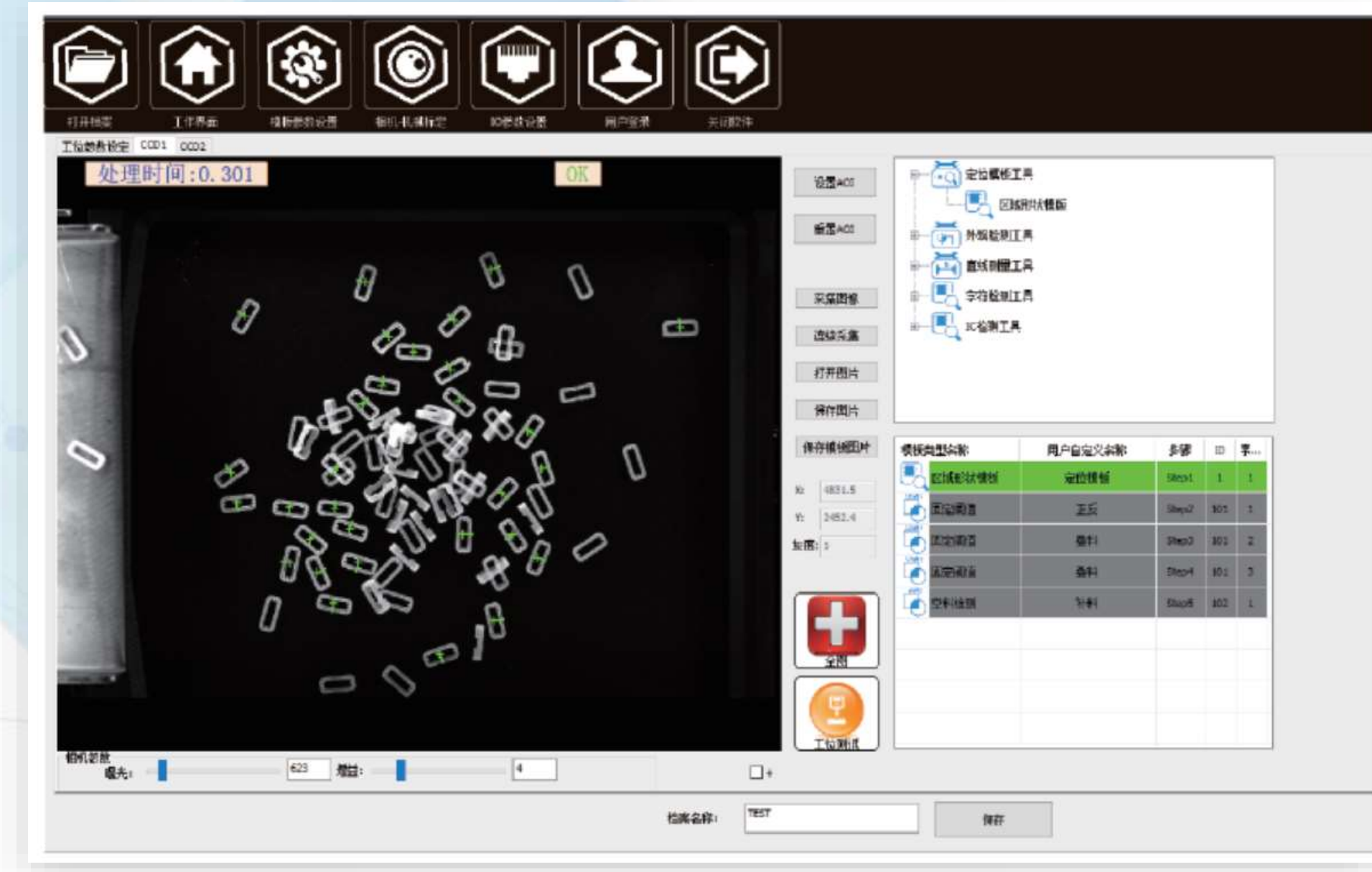


20L

## 4. Visual Positioning System

Positioning	Within the field of view, products of any shape can be positioned, supporting backlight and front light positioning.
Result output	Upper camera (vibration bowl surface positioning): outputs the position and angle information (X, Y, Z) of all positioned products, and can support up to 8 heads (nozzles) for grabbing  Lower camera (bottom correction station): Output the position and angle information of the current product (X, Y, Z)
Appearance Inspection	Upper camera (vibration bowl surface positioning): It can be set up not to capture products with defects on the upper surface, or set up to be discarded after capture.  Lower camera (bottom correction station): If there are defects on the lower surface of the product, it can be directly discarded and removed.
Calibration method	Standard nine-point calibration method
Communication method	232 MODBUS/TCP MODBUS
Template editing method	Supports independent editing and archiving of multiple templates
Compatibility and Extensibility	It can support up to 16 cameras working at the same time, and it can support visual positioning and detection of 8 flexible vibrating feeders at the same time

Functions



User Interface

Camera configuration	Upper camera (vibration plate surface positioning): Depending on the plate size, a 1200W/2000W pixel camera can be configured  Lower camera (bottom correction station): Depending on the size of the product, a 130W/500W pixel camera can be configured  Brand standard: Hikvision camera, optional: German BASLER camera,
Camera	Depending on the installation height, 12MM/16MM/25MM/35MM/50MM FA lenses are optional.  Lens resolution and corresponding camera resolution benchmark  Brand: Standard Hikvision lens, optional Japanese COMPUTAR lens
light source	Standard backlight at the bottom of the panel,  Optional forward plate module, external strip light source or top light source
Industrial computer	4U industrial computer, which can be customized according to the number of cameras

Configuration instructions





Flexible Feeding System

# Application

# Contents



Flexible Feeding System Advantage



Flexible Feeding System Application



Flexible Feeding System Models



Accessories



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