Dual pallets dispenser dual pallets magazine
chep pallets dispenser chep pallets magazine
User manual

Contents

◆ **Thank you for purchasing the products produced by our company. Thank you very much!**

◆ **This manual describes the pallet dispenser and how to use it.**

◆ **It is easy to use, but if wrongly operated, it can cause accidents, shorten the life of the machine, and reduce its performance. Therefore, please be sure to read this manual carefully before use, so that it can be used correctly and protected for a long time.**

◆ **Please keep this manual**

◆ **Please be sure to hand this manual to the user.**

◆ **Our company pays attention to technology updates and is subject to change without notice.**

Security precautions

Please be familiar with all the contents of this manual before setting up, running, maintaining, and checking, so that you can use it properly and familiarize yourself with the machine knowledge, safety information and precautions.

Please install the equipment according to the installation diagram, the technical description and technical requirements.

Please confirm that the rated power supply voltage of the product is consistent with the AC power supply voltage to avoid injury or circuit failure.

The wiring of the AC power supply should be carried out by a dedicated electrician, otherwise there is a risk of electric shock and circuit failure.

There is high voltage electricity in the electrical box of the machine, non-professional electrician or full-time maintenance personnel, please do not
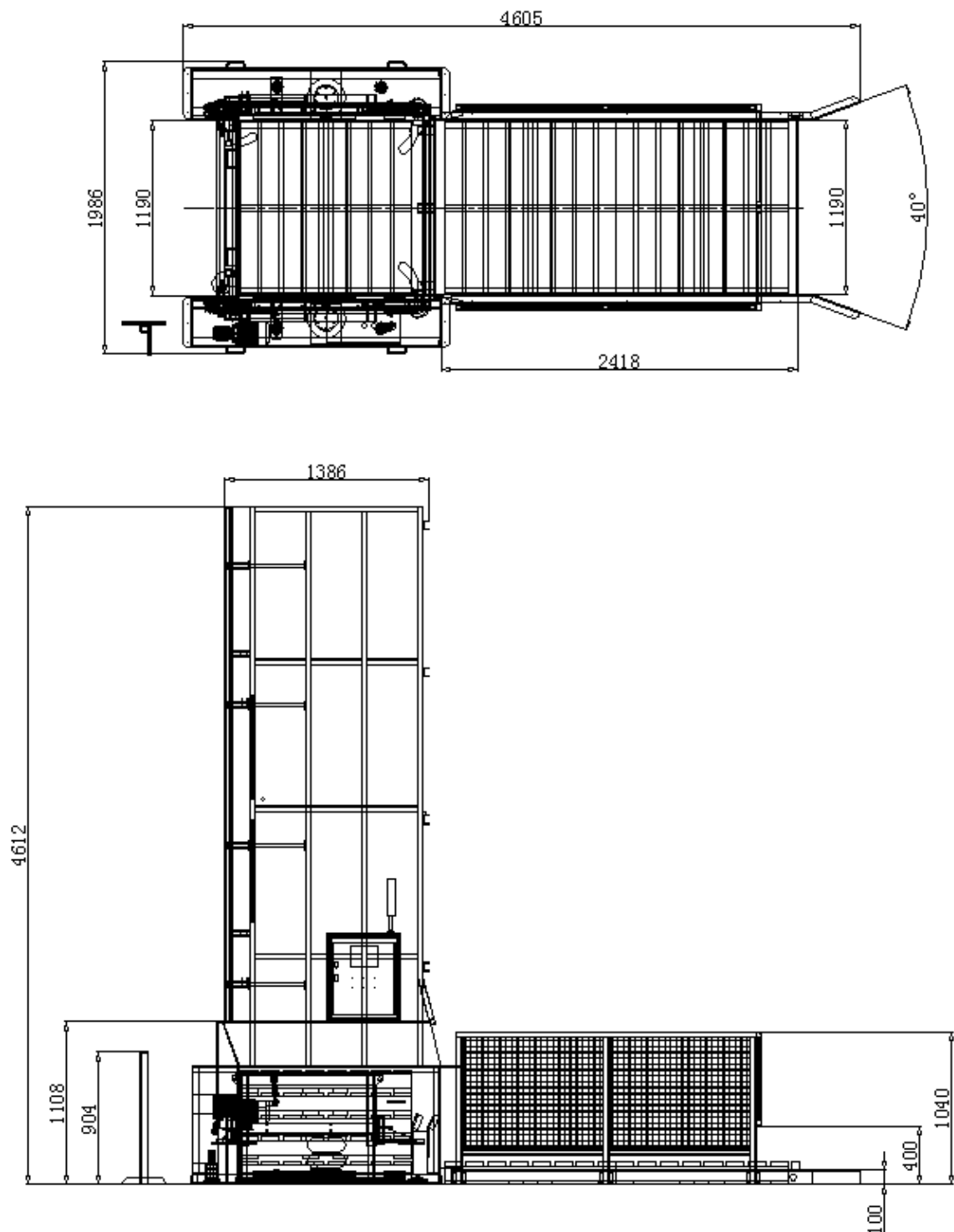
open to prevent electric shock.

Check after turning off the power for 5 minutes, otherwise there is a risk of electric shock.

When the machine is running, please do not approach the machine to avoid injury.

When the operation signal is added, the machine may restart when resetting, so please do not approach the machine to avoid injury.

一、Machine dimension:

二、Technical parameters

Machine dimensions：L 4605mm * W 1986mm * H 4612 mm

Machine weight：1500 kg

Weight capacity maximum：1300 kg

Pallet type：Australia chep pallet

Pallet size：1165*1165*150mm

Pallet storage capacity：30　(Max)

Lift weight：1300kg

Lift height：200mm

Dispensing speed：18-24 ones/ second
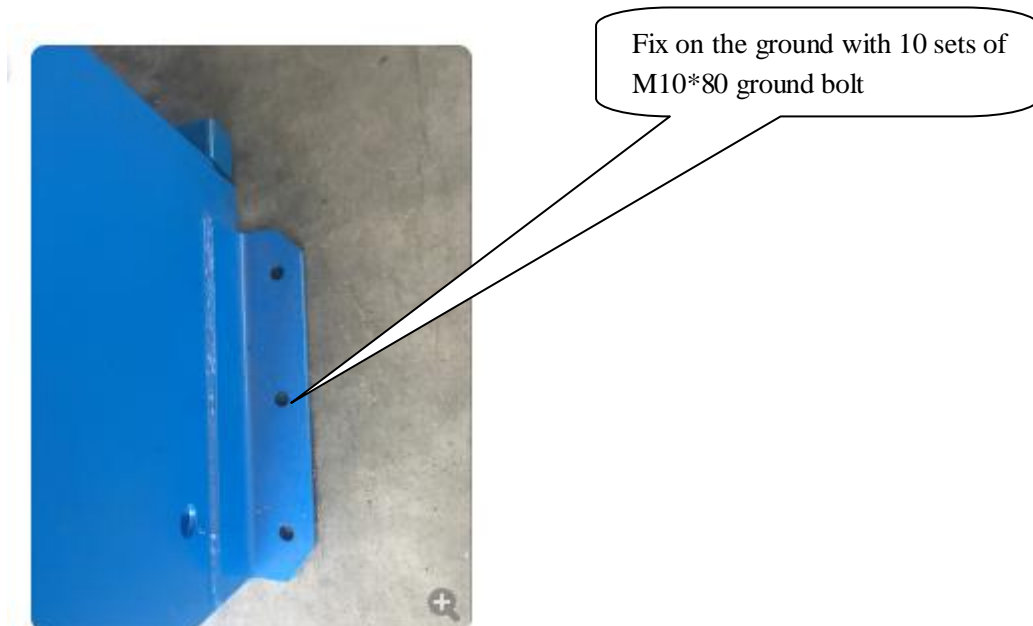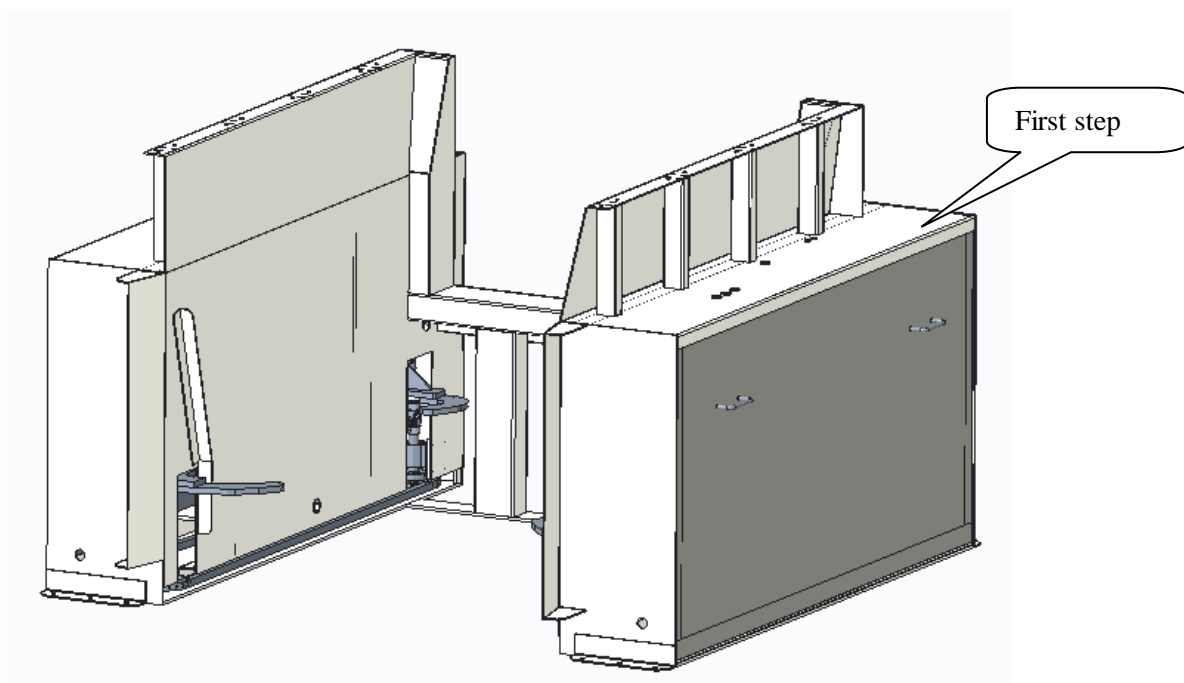
Power supply：3P 5 wires AC380V 50/60Hz

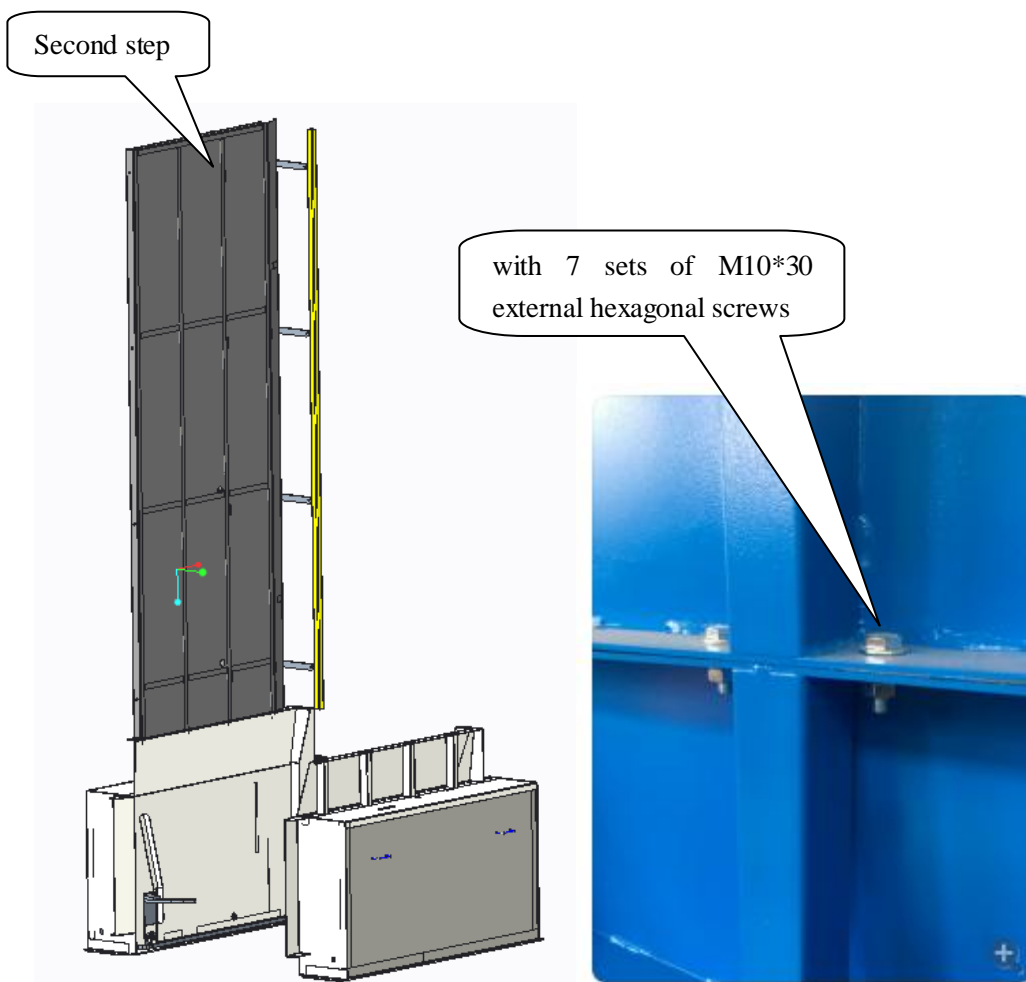Power：0.4kw

Air pressure：0.4-0.6Mpa

三、Machine installation

　　After the machine arrives, carefully disassemble the packing box and transport the machine parts such as the base and the guide grid to the designated installation position with the forklift. During the handling process, care should be taken to avoid damage to the machine parts. handling method：
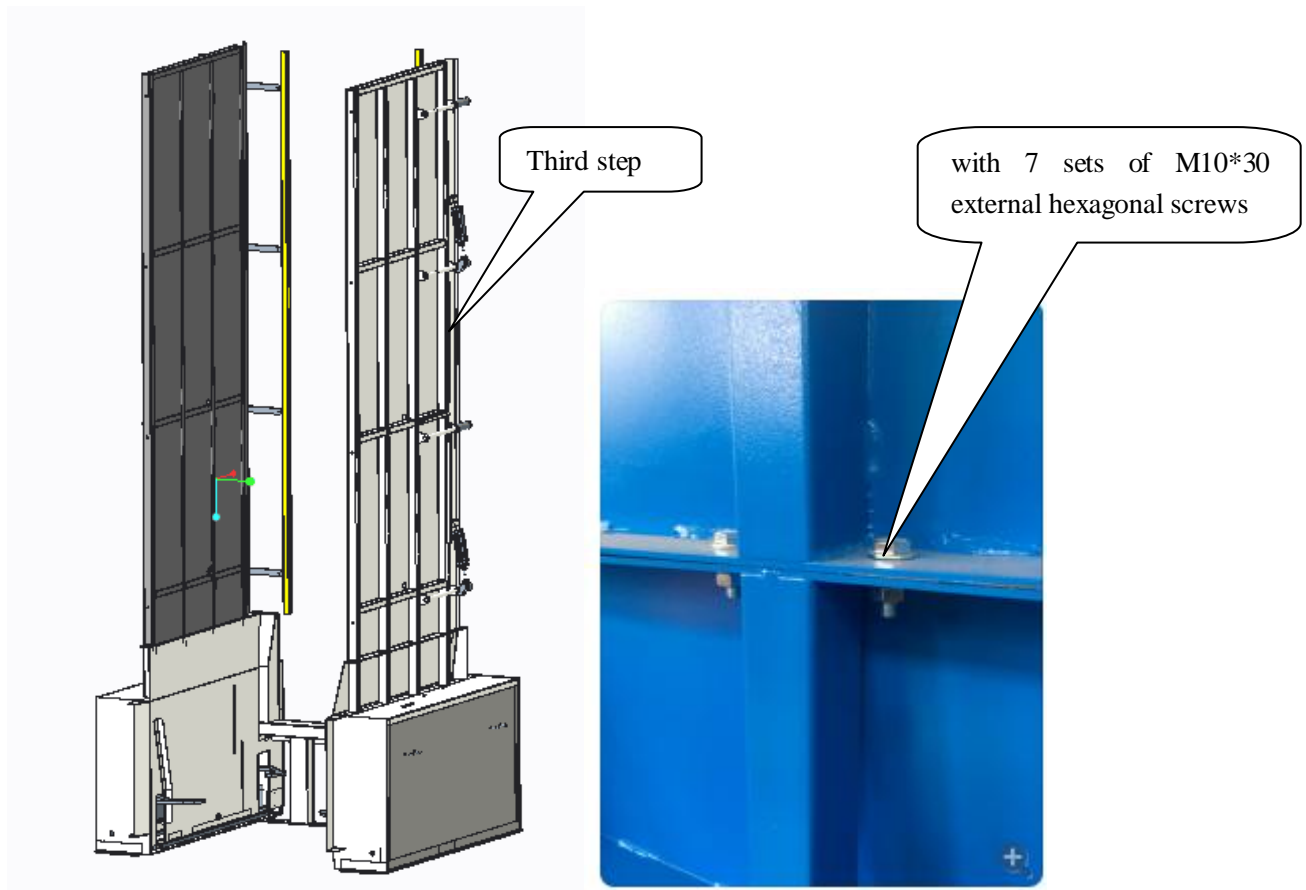
　　1. A smooth floor is needed for the installation of the machine.，Adjust the base plane appropriately and make sure it is stable.

2. After the base is placed horizontally，install the guide guardrail. Due to the heavy weight of the guiding barrier, it can be lifted by driving or other tools
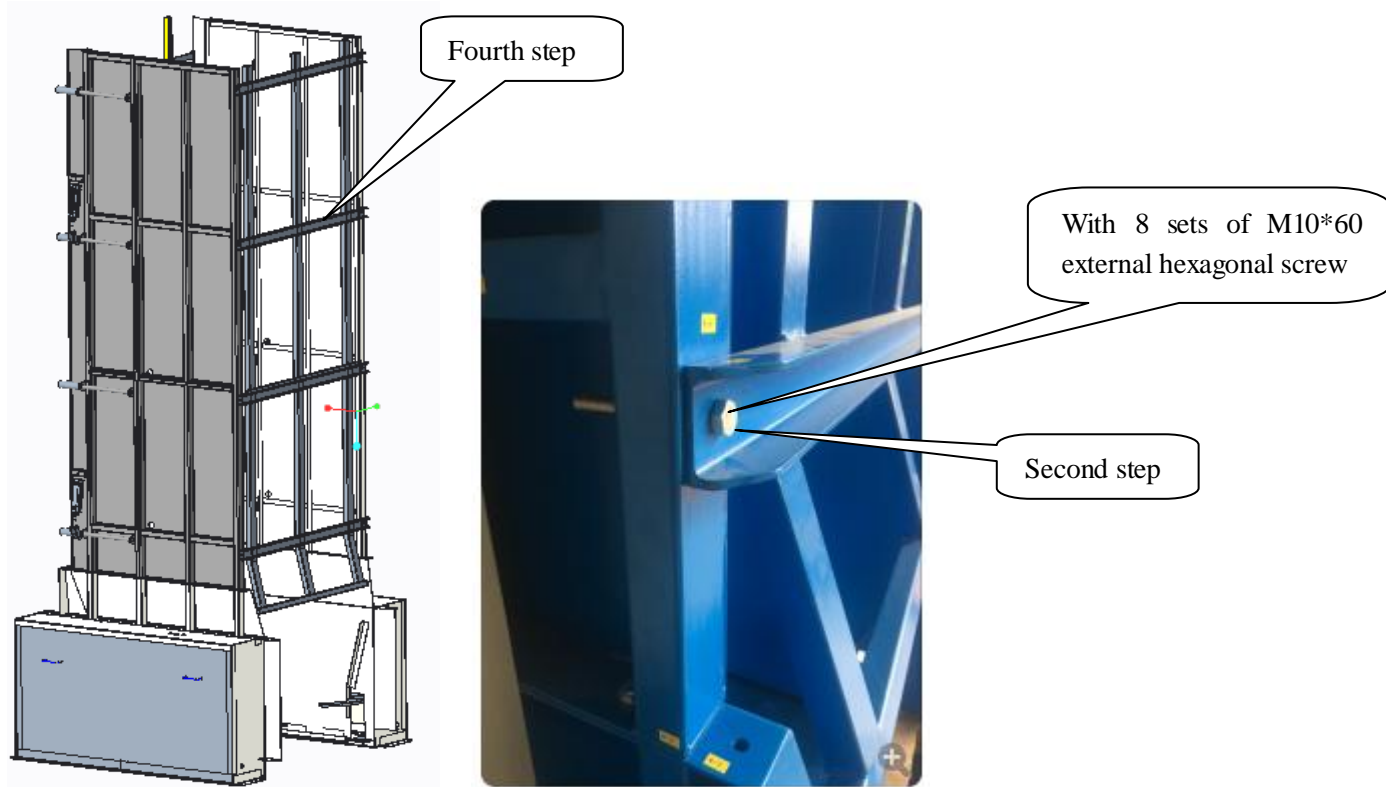
First step

Fix on the ground with 10 sets of M10*80 ground bolt

3. Install the guide plates on both sides (need to be lifted by crane), as shown below：

Second step

with 7 sets of M10*30 external hexagonal screws

Third step

with 7 sets of M10*30 external hexagonal screws

4. Install the back plate (need to be lifted by a crane), as shown below：

Fourth step

With 8 sets of M10*60 external hexagonal screw

Second step

5.Install push-out back plate (need to be lifted by a crane)， as shown below：

Fixed with 10 M8*70 ground bolt

Fifth step
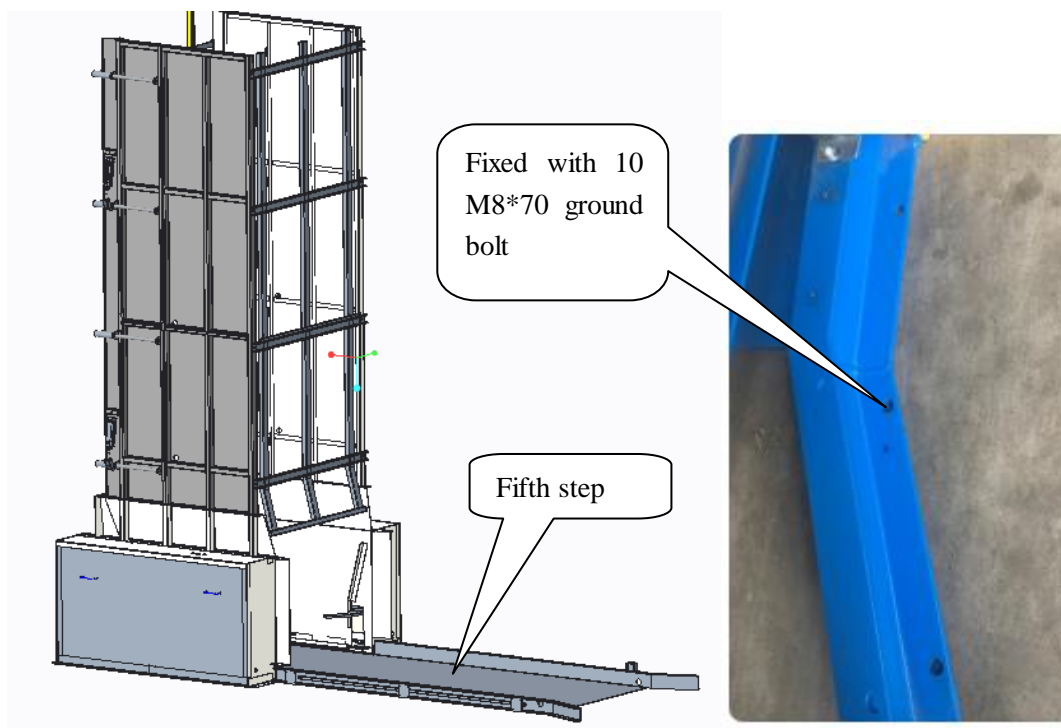
6.Install safety door, as show blow：

Fix with 24 M8*2 external hexagonal screw

Sixth step
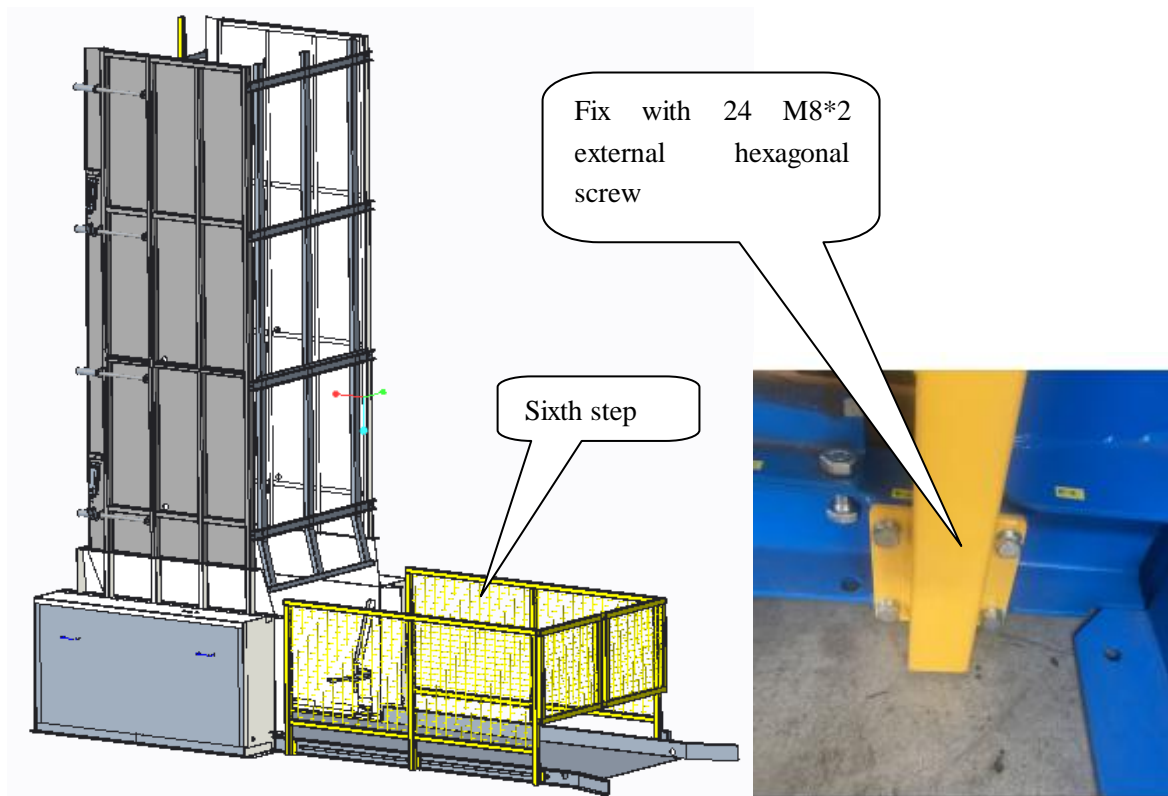
7.Install electricity box（fixed screw holes are inside the box）， as shown below：

Seventh step

Fixed with 2 M8*15 inner hexagonal screw
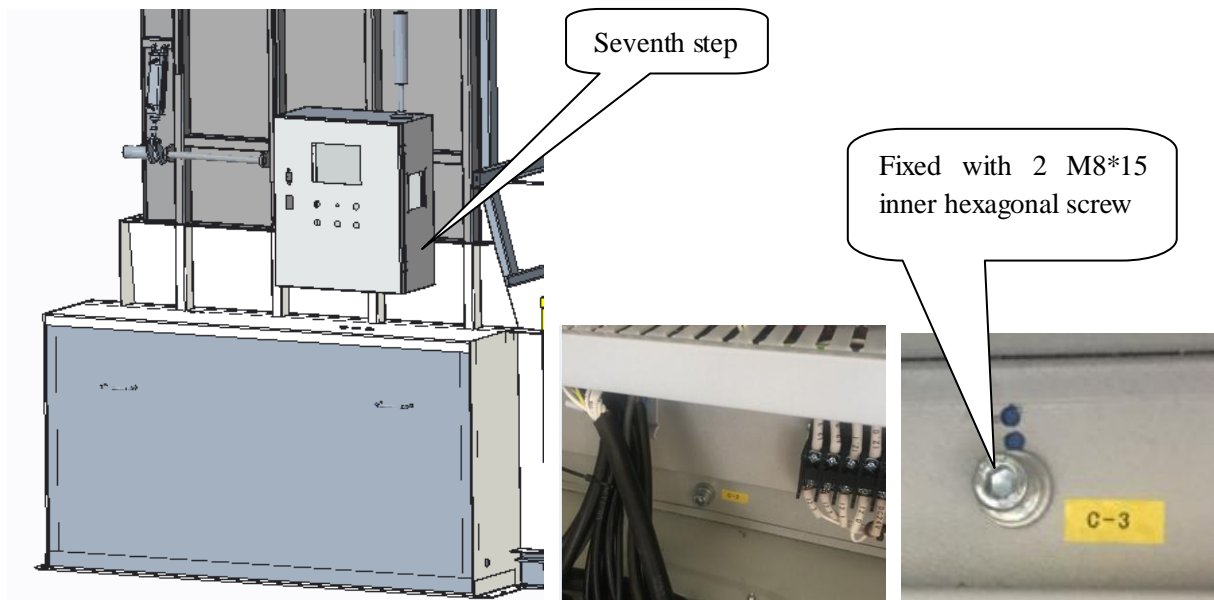
8. Install the safety door control pillar，as shown blow：

Eighth step

Fixed with 3 M8*70 ground bolt
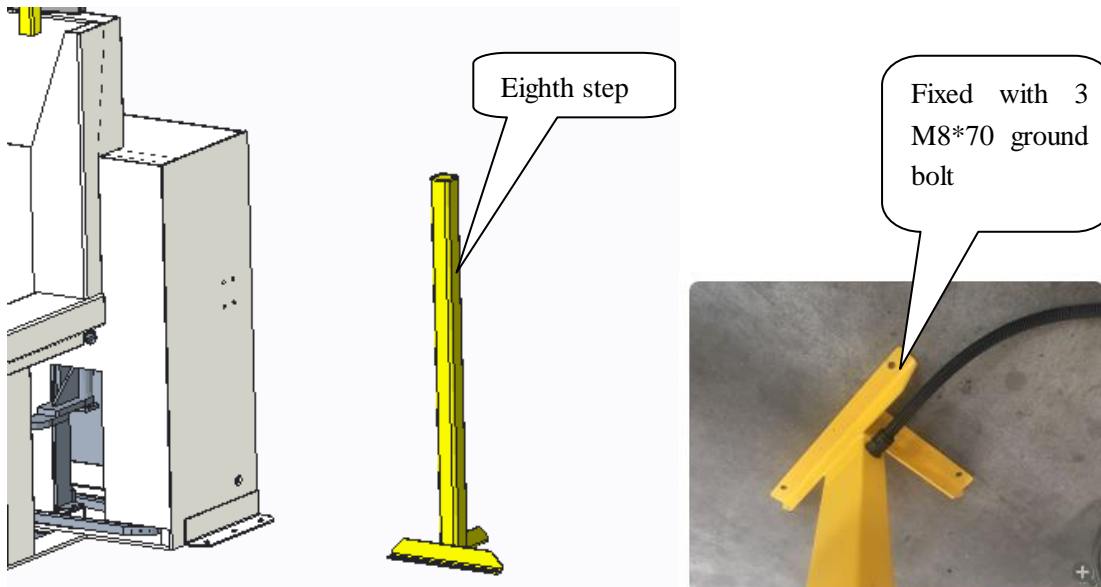
9.Terminal box wiring（one by one according to the number on the wire）：as shown blow

10.Install proximity switch & photocell：as shown below:

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No pallet alarm photocell

Few pallet warning photocell

Front safety door swith

11. Connect the power supply, the power supply must meet the requirements of the voltage, current, power and number of boxes.;

12. Connect the air pipe according to the number and connect the air source. The air pressure range is: 0.4-0.6Mpa, as shown below.：

Pressure adjustment handle

Ø10mmconduit

13、 Equipment working direction：
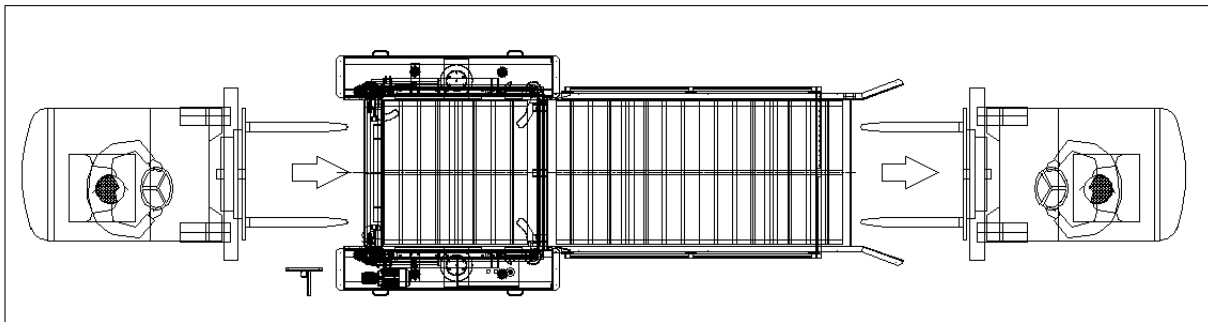
14、 Adjust the pressure of elevator mechanism from lower position to middle position （This pressure is different from other working pressures. It only rises from the lower to the middle when it is automatic.）

四、 Control panel specification

HMI

Manual/Auto

Stop

Power indicator light

Start

Emergency stop

Conveying speed adjustment
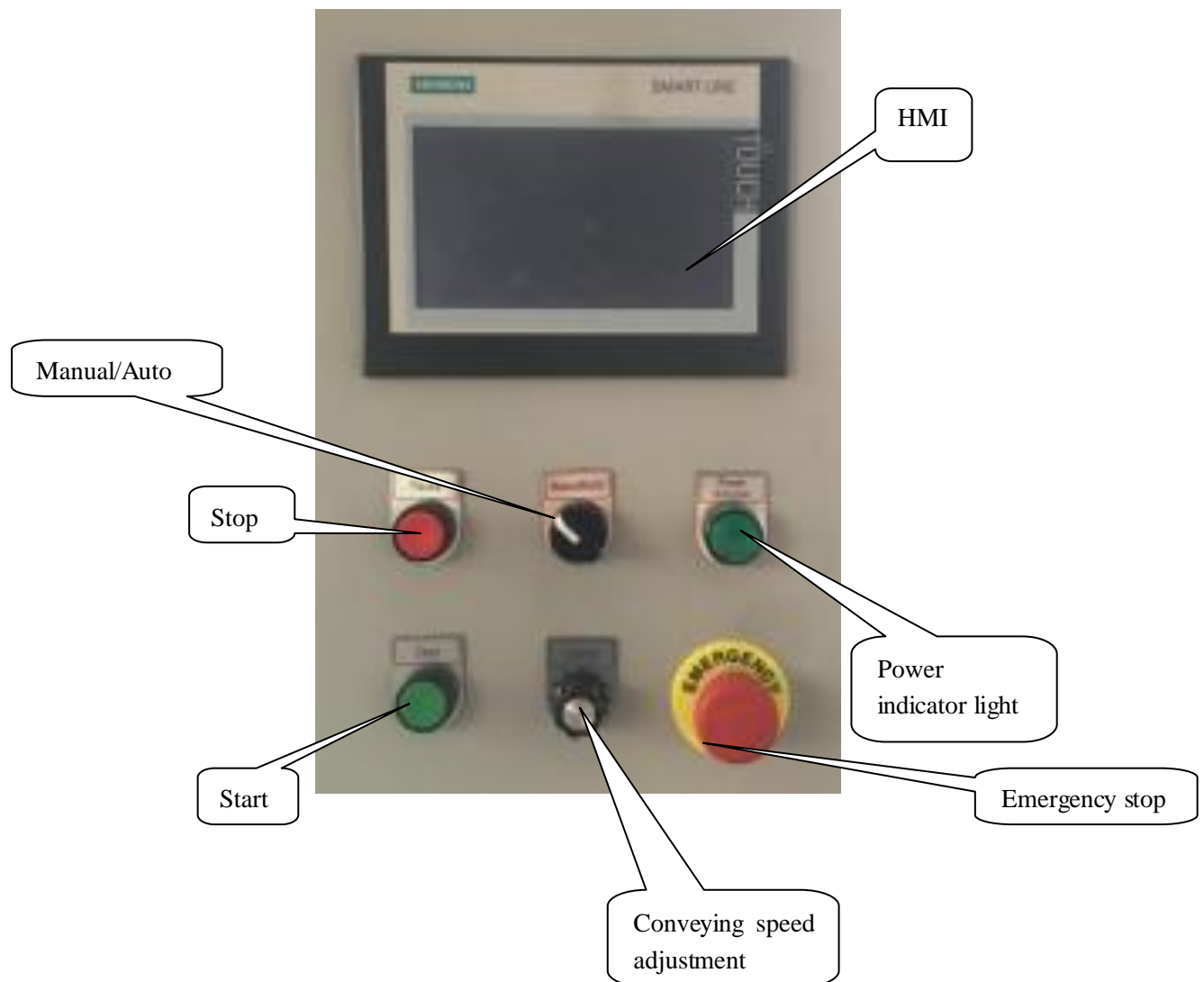
五、 First starting up debugging specification

Start up picture：
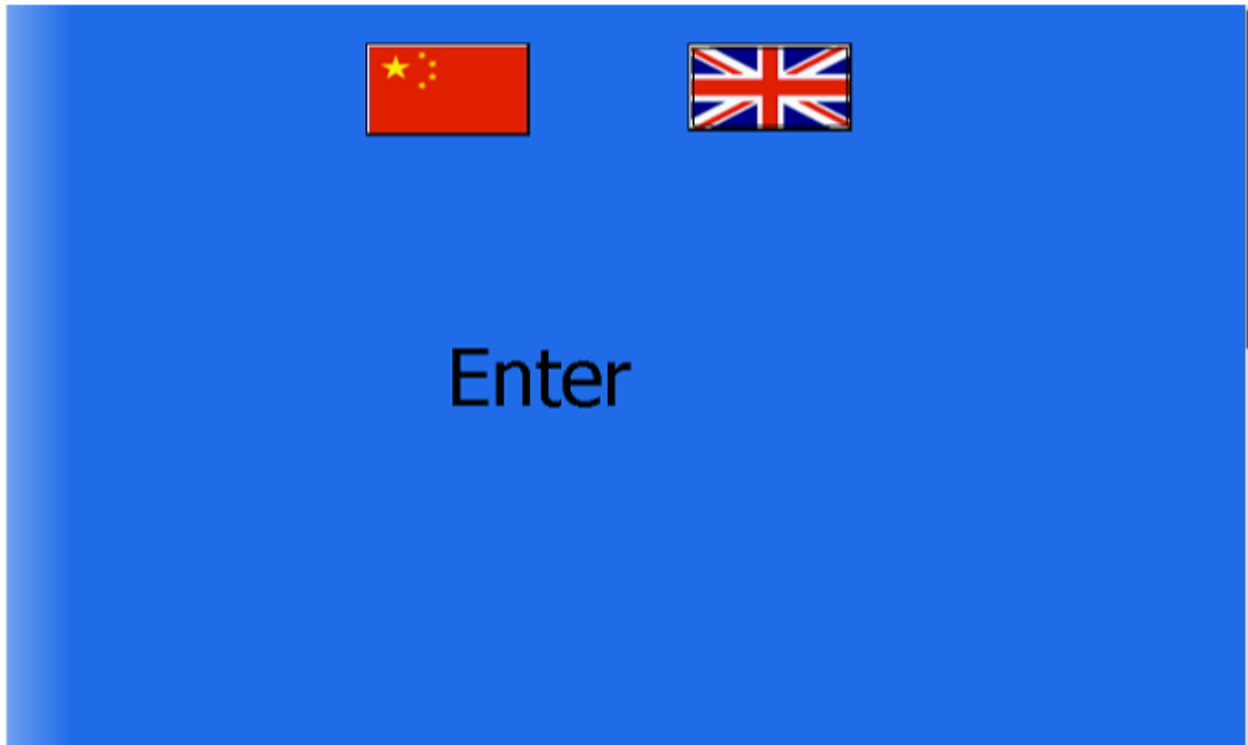
Enter

click the screen to enter the system Enter ;

Running page(menu)：
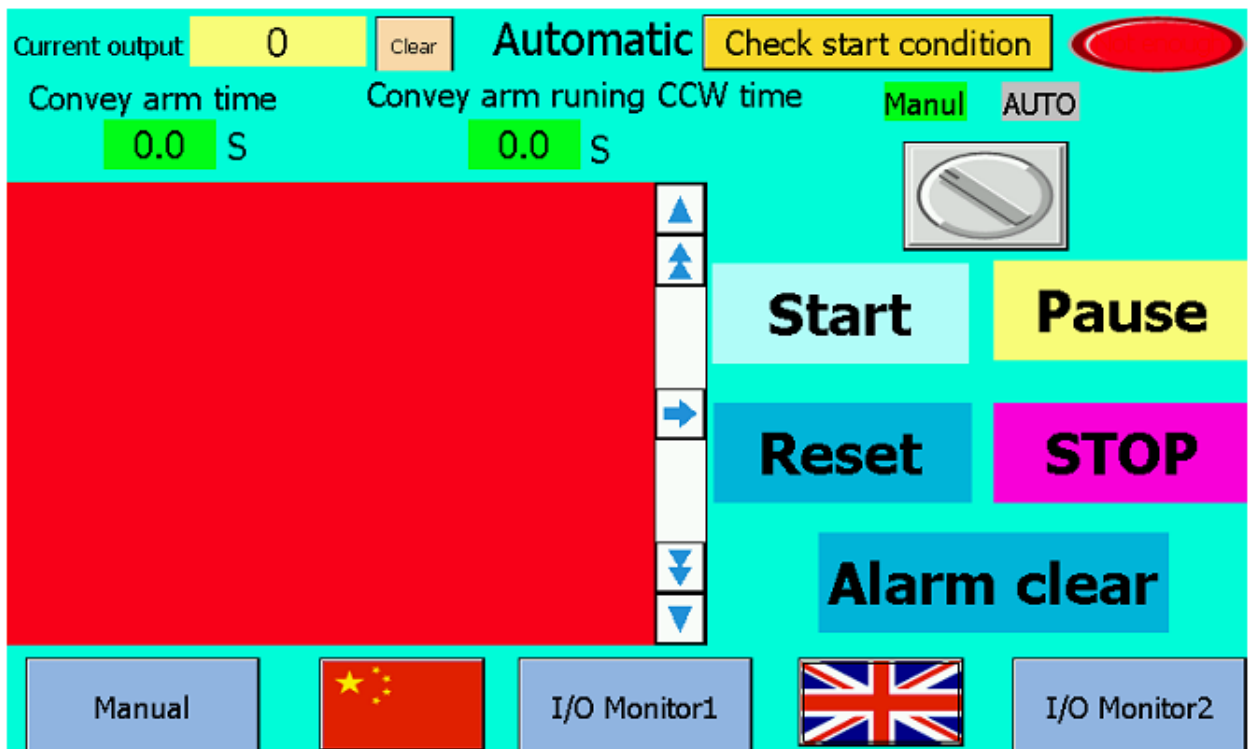
Manual**/auto**：switch between manual and auto mode

Click to enter manual page;

Manual page：
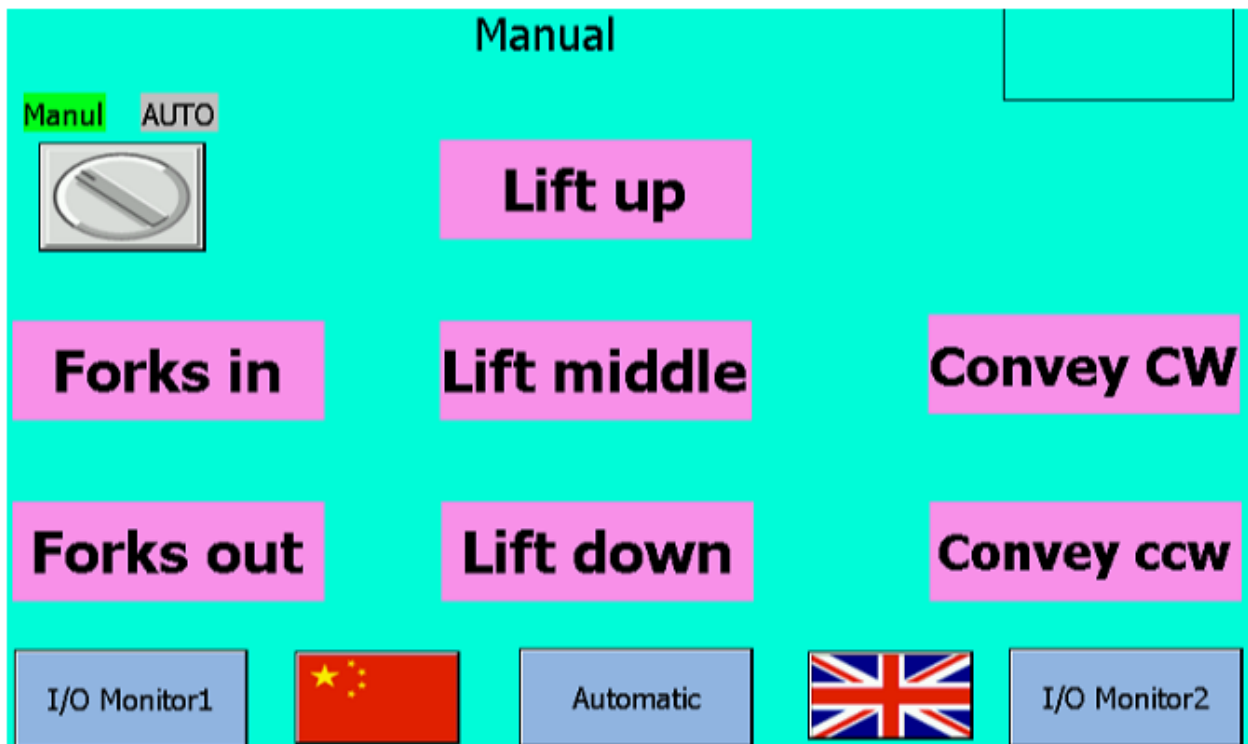
六、HMI specification

1.Enter page：

：interface showed in Chinese；

：interface showed in English；

：click screen to enter system

2.Menu page：
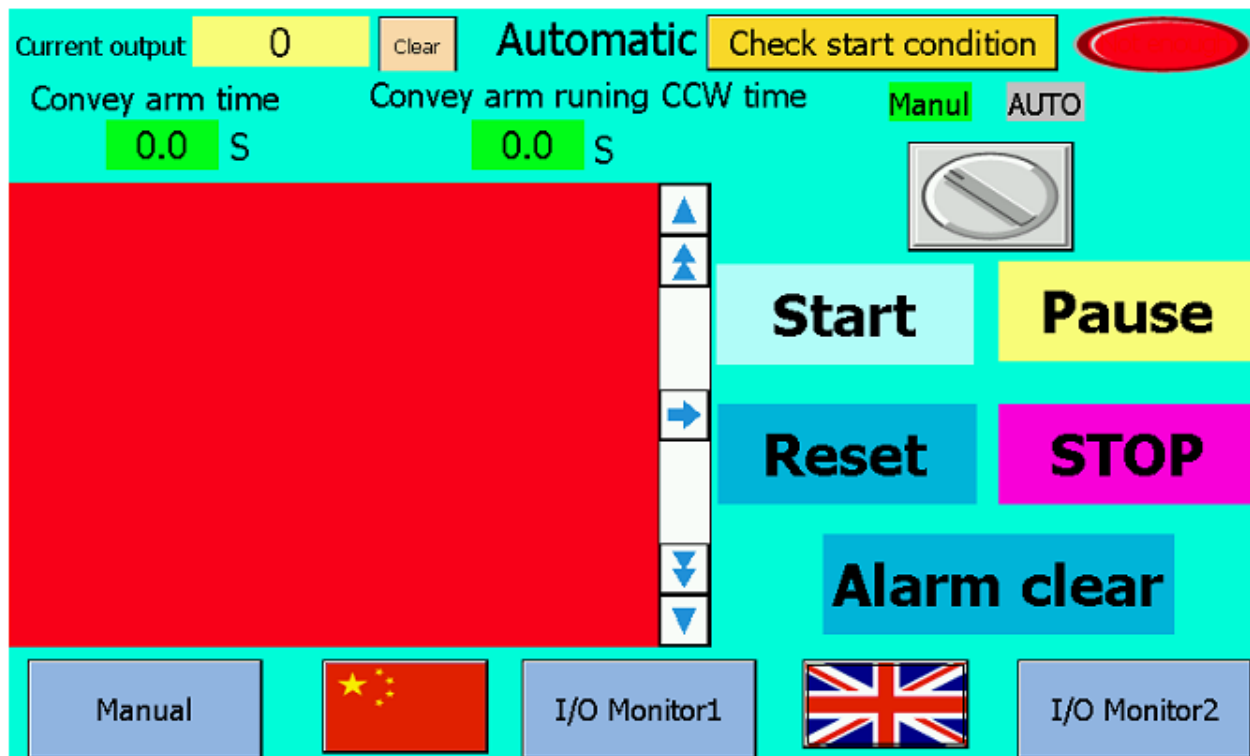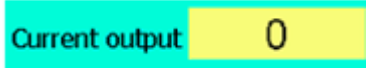
: interface showed in Chinese;

: interface showed in English;

Current output : show the numbers of package，1 package means press 'start' button 1 time；click to clear the data.

: this parameter shows when the machine is at standby status(not automatic running), click the button to look for details，

Start condition

Back

Manul/Auto	I0.0	🟢
fork cyl front position1-1	I1.4	🔴
fork cyl front position1-2	I1.6	🔴
fork cyl front position2-1	I2.0	🔴
fork cyl front position2-2	I2.2	🔴
lift cyl lower position	I0.7	🔴
safety sensor-1	I2.4	🔴

safety door sensor	I2.6	🔴
ultrahigh sensor	I1.3	🟢
Inverter failure	I2.7	🟢
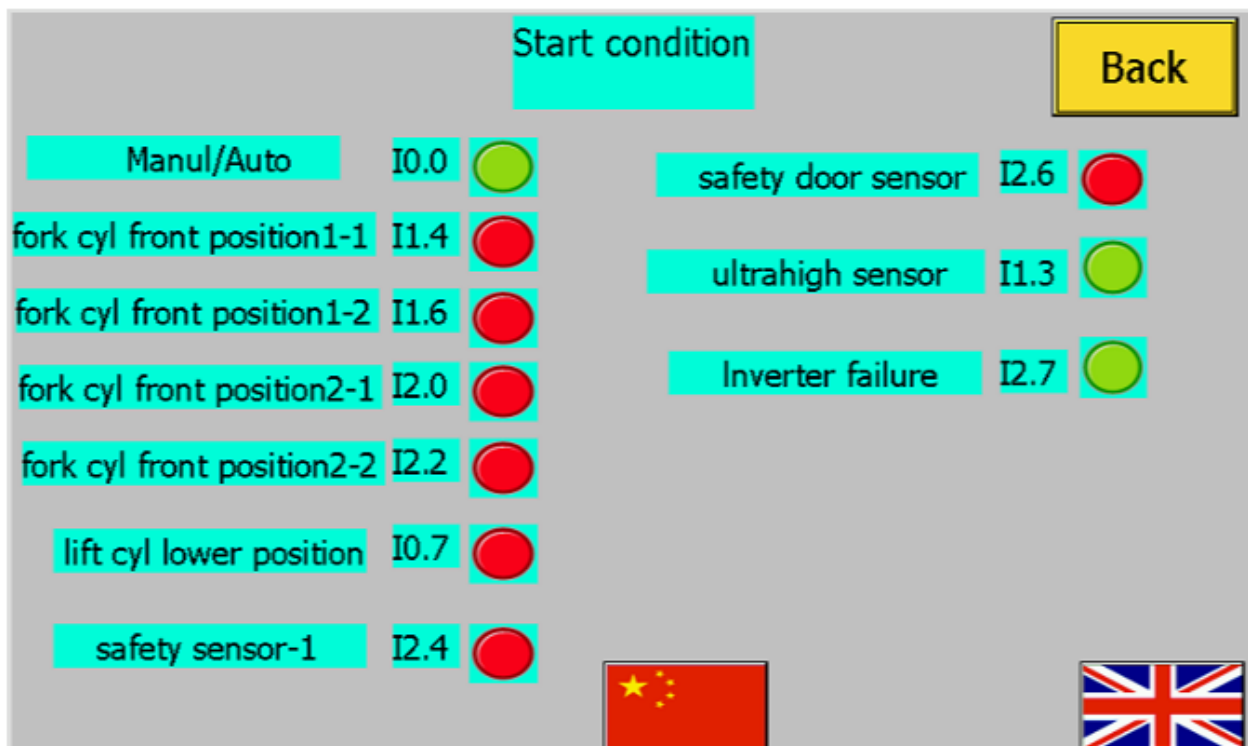
Convey arm time `0.0` S : Set the total time for the motor to push out the card. When the motor starts to run, this time will start counting. If the pushing mechanism has not returned to the home position within this time period, the system will alarm and the motor will reverse running, in case of pallet blocked;

Convey arm runing CCW time `0.0` S : When the pallet is blocked during the pushing out process, set the motor reversal time, which is mainly convenient for manually processing the blocked pallet;

Manul AUTO : Manual/auto: switch between manual and auto mode

Start : In the automatic mode, press this button, the device starts running, the three-color lamp turns green (as shown below); start distributing pallet; If press this button, the device cannot be started, then press the reset button, or the emergency stop switch .

Pause : When the device is running, press this button, the device pauses. To continue, press the start button.;

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 : In the automatic mode, press this button, the device resets, the three-color lamp is yellow (as shown below); if the device is in the home position, press this button, the device does not respond;

 : When the device is running, press this button, the device stops running; to continue, press the reset button; then press the start button; it must restart;
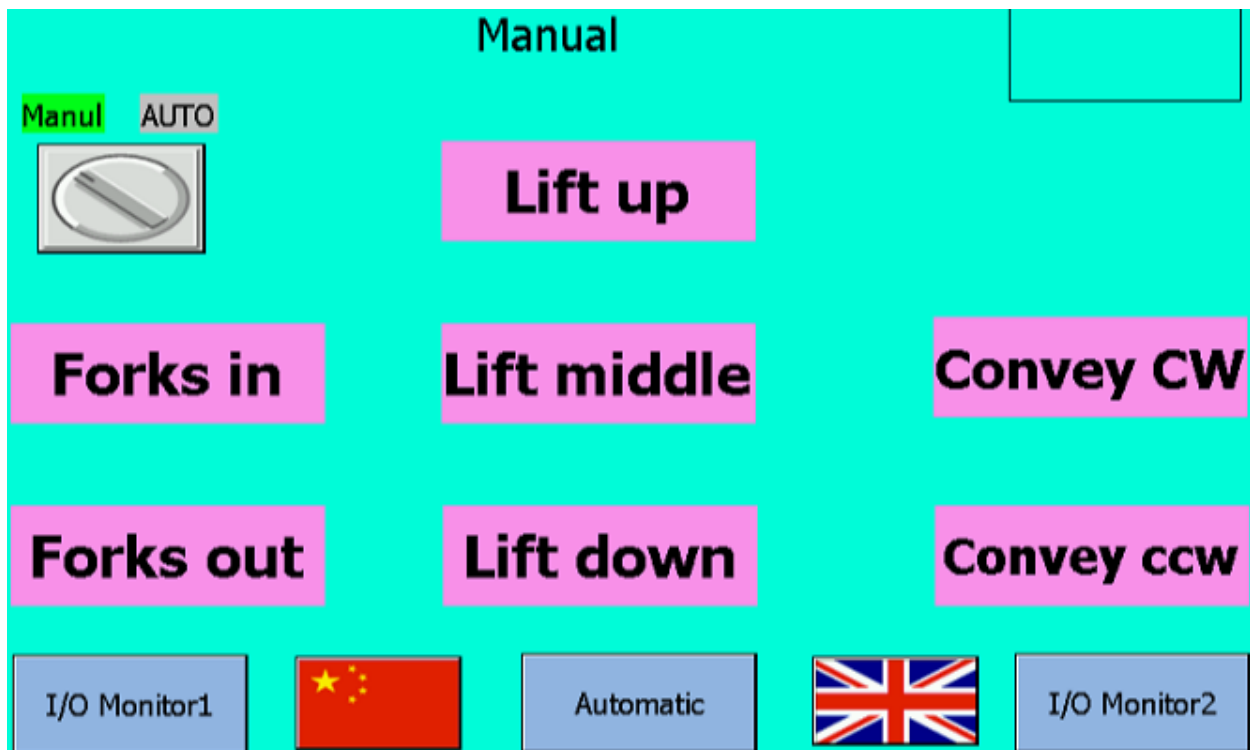
 : Click to enter the manual screen;

 : Click to enter I/O status monitoring;

3.Manual page

Click to enter manual page:

Manual

Manul AUTO

Lift up

Forks in   **Lift middle**   **Convey CW**

Forks out   **Lift down**   **Convey ccw**

I/O Monitor1   Automatic   I/O Monitor2

Forks in: In manual mode，click **Forks in**，The four forks on the device push outward;；if the current is in the "forks out" state， click does not respond；the forks out state as shown below：

Forks out position

Forks out: In manual mode，click **forks out**，The four forks on the device pull back;；if the current is in the "forks in" state， click does not respond；the forks in state as shown below：

Forks in position

Special note: If the current status of the device is as shown below:

Forks out position
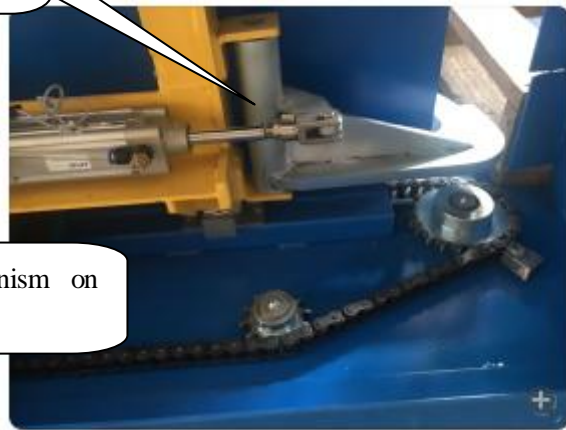
Lifting mechanism on upper position

Click **Forks out**, as shown below:

Forced forks back : Click this button to force the fork to retract. At this time, the fork will not be fully retracted or the pallet will fall and damage the device; please be careful;

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Back ：Click this button to abandon the forced forks back and close the page

Lift middle ：In manual mode，click **lift middle**，The lifting mechanism on both sides of the device rises or falls to the middle position; if it is currently in the middle position, the click does not respond; the middle position of the lifting mechanism is as follows:

proximity switch position can be adjusted when in middle position

Lift up ：In manual mode，click **lift up**，The lifting mechanism on both sides of the device rises to the highest position; the lifting mechanism will rise regardless of the current lower or middle position; if the current position is at the highest position, the click does not respond; the highest position of the lifting mechanism is as follows:

Proximity of highest position can't be adjusted

Lift down: In manual mode, click <u>lift down</u>, The lifting mechanism on both sides of the device is lowered to the lowest position; the lifting mechanism will drop regardless of the current upper or middle position; if the current position is at the lowest position, the click does not respond; the lowest position of the lifting mechanism is as follows:

Proximity switch of lowest position can't be adjusted

Convey CW: click this button, pushing chain works in forward direction, The pushing speed can be adjusted by the potentiometer on the panel. Attention: When running manually, first check if there is only one pallet at the bottom, and has the second pallet been lifted? It is forbidden to push out more than 2 pallets, otherwise it will easily damage the chain;

Convey ccw: click this button, pushing chain works in the opposite direction, mainly use when there is pallet blocked;

4.Alarm record

In other papges, click 报警记录 to enter alarm records page, as shown below:

The alarm content will only be displayed on the screen when an alarm occurs; when an alarm occurs, reset or press the emergency stop, or eliminate the alarm fault displayed on the screen.；

5.IO monitoring page

First page:

I/O Monitor 1			
Manul/Auto I0.0 ●	Under photoelectricity I1.0 ●		
Stutter stop I0.1 ●	middle photoelectricity I1.1 ●		
stop I0.2 ●	Conveyor sensor-2 I1.2 ●		
start I0.3 ●	ultrahigh sensor I1.3 ●		
Conveyor sensor-1 I0.4 ●	fork cyl front position1-1 I1.4 ●		
lift cyl upper computer I0.5 ●	fork cyl back position1-1 I1.5 ●		
lift cyl middle I0.6 ●	fork cyl front position1-2 I1.6 ●		
lift cyl lower position I0.7 ●	fork cyl back position1-2 I1.7 ●		
I/O Monitor2	🇨🇳	Automatic	🇬🇧 I/O Monitor3

This screen mainly shows the running status of each input point of the PLC.；

Second page:

I/O Monitor 2

fork cyl front position2-1	I2.0	🔴
fork cyl back position2-1	I2.1	🔴
fork cyl front position2-2	I2.2	🔴
fork cyl back position2-2	I2.3	🔴
safety sensor-1	I2.4	🔴
Not pallte sensor	I2.5	🔴
safety door sensor	I2.6	🔴
Inverter failure	I2.7	🔴

I/O Monitor1	🇨🇳	Automatic	🇬🇧	I/O Monitor3

Third page:

I/O Monitor 3

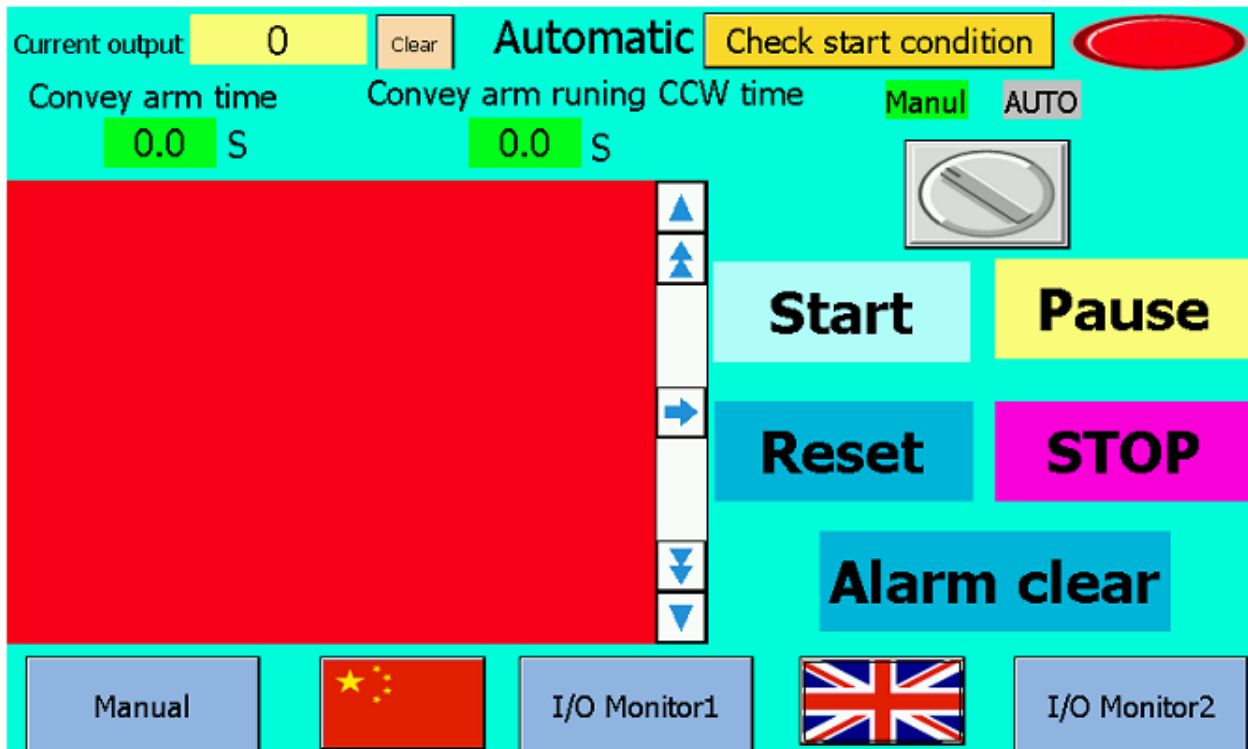| Lift up-1	Q0.0	🔴	Lift up-2	Q1.0	🔴
Lift down	Q0.1	🔴	NC	Q1.1	🔴
Forks in	Q0.2	🔴	NC	Q1.2	🔴
Forks out	Q0.3	🔴	NC	Q1.3	🔴
Convey running cw	Q0.4	🔴	green light	Q1.4	🔴
Convey running ccw	Q0.5	🔴	yellow light	Q1.5	🔴
NC	Q0.6	🔴	red light	Q1.6	🔴
NC	)0.7	🔴	buzzing	Q1.7	🔴

I/O Monitor1	🇨🇳	Automatic	🇬🇧	I/O Monitor2

This screen mainly shows the running status of each input point of the PLC;

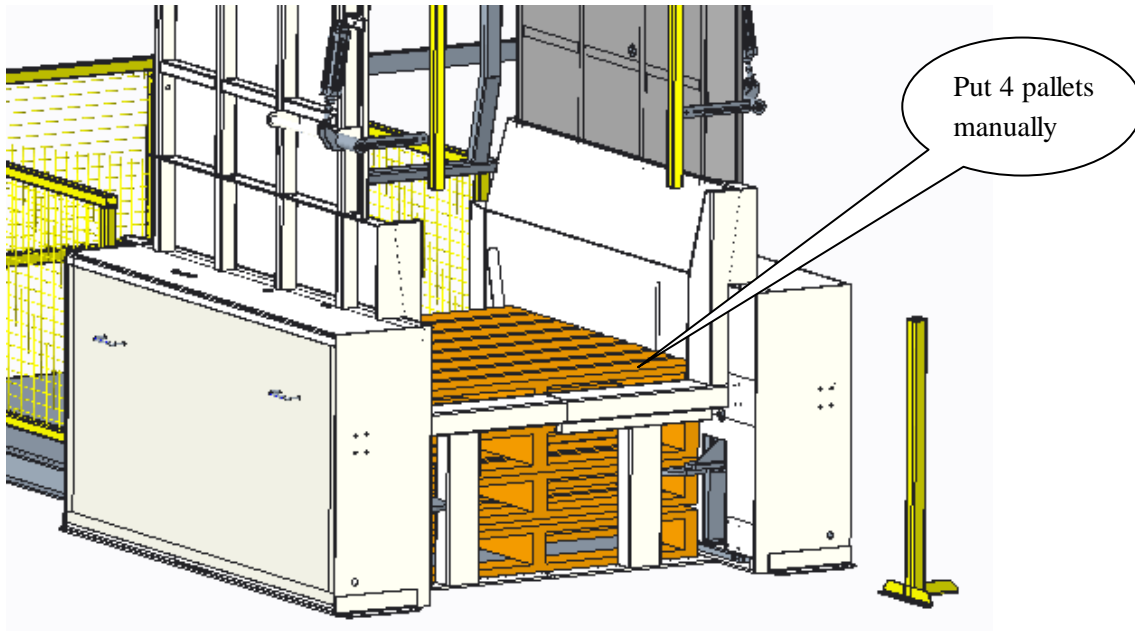## 七、 Automatic running

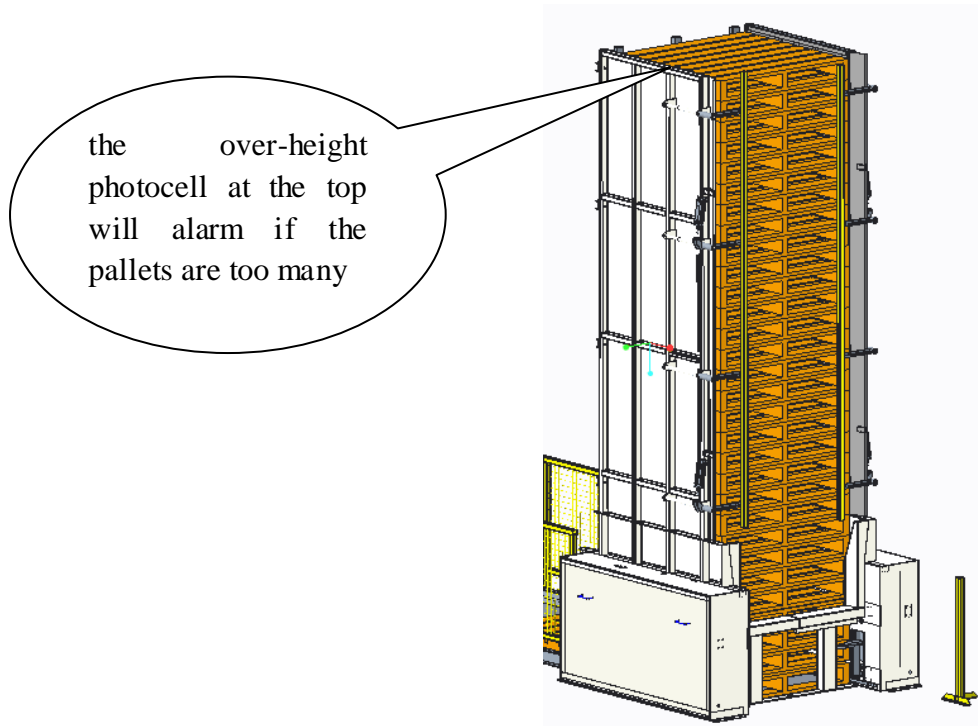1. Open safety door (in OPEN direction), as shown below：

2. Put in 4 pallets manually, as shown below：

Put 4 pallets manually

3. Put other pallets with forklift(the total number of pallets must be less than 30 ones)；

the over-height photocell at the top will alarm if the pallets are too many

4. Close safety door，as shown below：

5.Auto/Manual： Manual/auto：switch between manual and auto mode

6. click button, the machine starts; the light turn green, as shown below：

Anything in the exit photocell are prohibited

7.distributing, as shown below：

Initial state

Plunger lift up to middle， stretch in the inner side of pallet

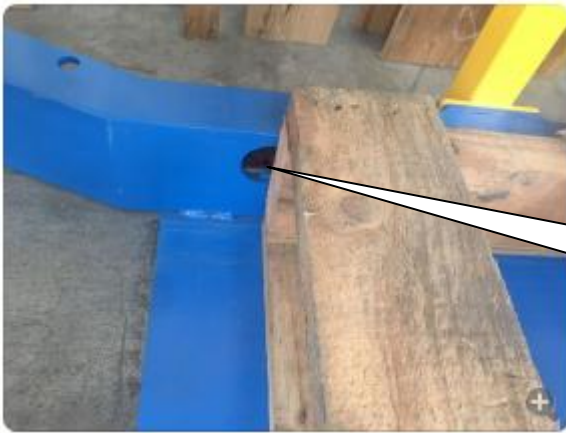Plunger lift up to upper position, lift up ， lift up pallets except first one

Pallet pushing out

First pallet dispensing finished

Second pallet dispensing finished

When photocell detects pallets, it won't distribute until pallets removed

8. When lack-of pallets photocell can't detect pallets, please add pallets timely, there should be no less than 4 pallets, when there are only 4 pallets, pallet dispenser will in standby mode；

Photocell detects no pallets, it stops distributing
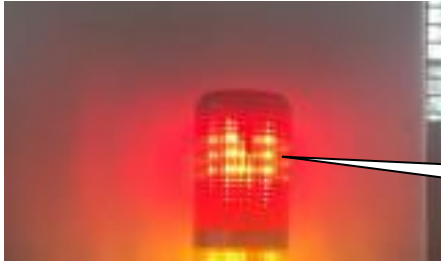
Few pallet warning photocell

Lack of pallet detecting photocell

Few pallet warning photocell

Lack of pallet detecting photocell

The red light is on and an audible alarm sounds.

5.If the devices not used for a long time, please turn it off ；
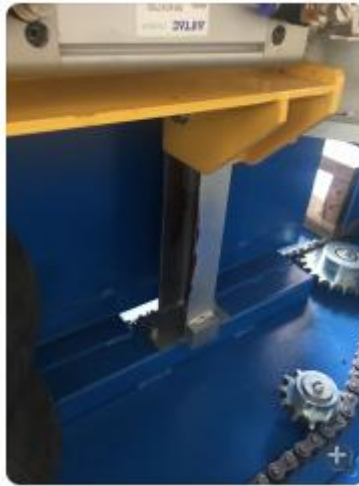
八. Machine maintenance

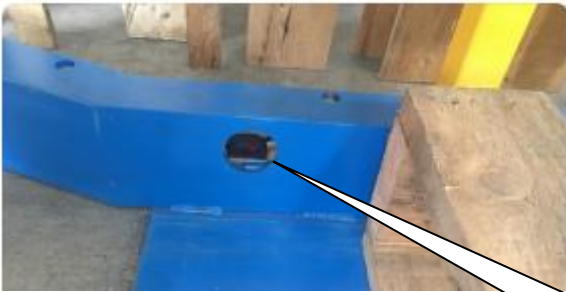1. Air source oil cup filled with liquid lubricant every 3 months;

Open the lid

Add lube regularly

2. add lube to the guide rail of elevator mechanism every month（open the coverlid of two sides）

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Add lube regularly

3. Photoelectric mirror cleaning regularly, （5 photocells in total）

4. check if the chain is loose regularly,

Cleans photoelectric mirror regularly, (5 ones)

Adjust the tightness

九. Circuit diagram