MICROTEC

APEX QUICK GUIDE

X-Peel

APEX X-Peel
Auto Film Peeler

One picture per step. Follow the steps in order.



Safety first

This machine moves by itself

The arm moves and grips on its own when the rotary press sends a signal. Keep hands, hair and loose clothes away from the arm and the gripper.

Reaching in? Stop the machine first

Press the red EMERGENCY STOP button before you clear a jam or touch the arm.

220V single-phase power with a good ground

Ground: less than 4 ohms, ground wire thicker than 4 mm², no longer than 65 ft (20 m). Have an electrician check it.

Compressed air inside

Turn off the air before you work on hoses or the gripper.

Indoors, dry, level floor

32–104°F, humidity below 80%. Away from water, heavy dust and anything that can burn.

Emergency? Press the red **EMERGENCY STOP** button on the control panel. The machine stops at once and the light turns red. When it is safe: twist the button to release it, hold **RESET** for 2 seconds so the arm goes home, then press **START**.

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1 Set up



1. What the X-Peel does

It stands next to your APEX X-series rotary press (X4 / X6 / X8). After a shirt is pressed, the plate holds the shirt down and the gripper pulls the DTF film off. You do not peel by hand.

2. Roll it into place

Put it on a level floor next to the rotary press. Lower the leveling feet so it cannot roll.



3. Connect the network cable to the rotary press

The ports are low on the back of the machine. Plug the network cable from the rotary press into the Ethernet port. This is how the press tells the X-Peel when to peel.







4. Connect clean, dry compressed air

Connect the air hose from your compressor to the air inlet. Without air the gripper cannot work.

5. Plug in 220V power

Use a 220V single-phase, 60 Hz supply with a good ground. If you are not sure, ask an electrician.

6. Turn the POWER key to ON

Turn on your main breaker first. Then turn the POWER key on the control panel. The screen comes on.

Air supply: set it to **58 psi** (4 bar). Use a compressor that gives at least 4.2 CFM, with a 10-gallon tank or bigger.

2 Know your machine



1 Garment fixing plate

Holds the shirt flat on the platen so the film peels off cleanly.

2 Status light

Green = running in Auto. Yellow = Teach mode. Red = emergency stop or alarm.

3 **Touch screen**
Pick a saved program (M1–M6) and teach the peel position.

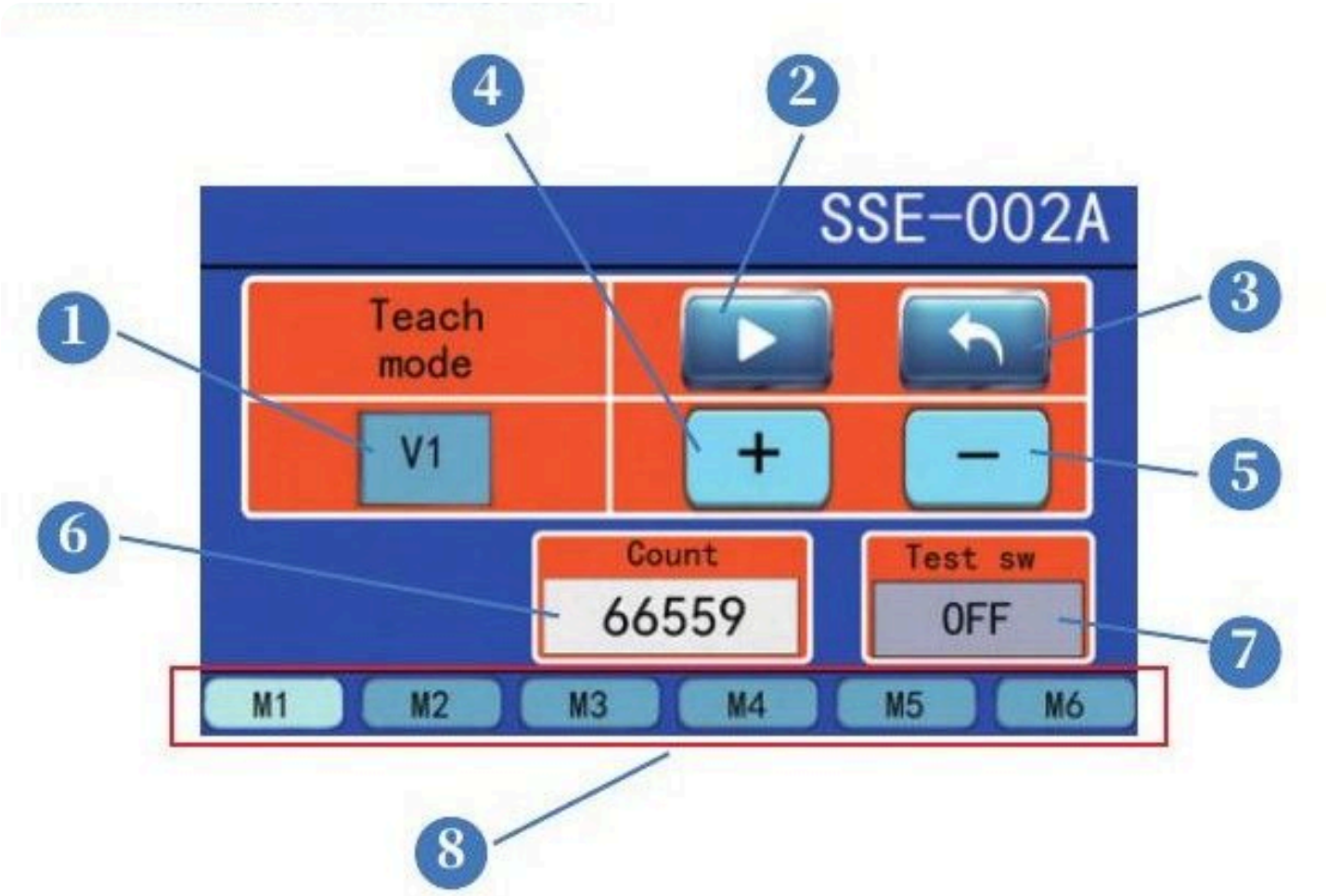
4 **POWER · RESET · START · EMERGENCY STOP**
The four controls under the screen. Hold RESET 2 sec to send the arm home. START = Auto mode.

5 **Peeling gripper / axis**
Moves to the film, clamps it and pulls it off.

6 **Air inlet · power cord · Ethernet port**
Low on the back of the machine. The Ethernet port connects to the rotary press.

⚠ **Light turns red?** The emergency stop is pressed or there is an alarm. Read the message on the screen.

3 Control panel and touch screen



1. **V1 indicator**
   Flashes in Teach mode while you move the gripper.

2. **▶ Confirm**
   Teach mode: confirms the current step.

3. **↶ Back**
   Teach mode: leave without saving.

4. **+**
   Teach mode: moves the gripper position one way.

5. **–**
   Teach mode: moves the gripper position the other way.

6. **Count**
   Adds 1 each peel. Hold 2 sec to reset to 0.

7. **Test sw**
   Teach mode: turn ON, then press START to try the taught moves.

8. **M1 – M6**
   6 saved peel programs. Hold 2 sec to pick one.

Teach a new peel position



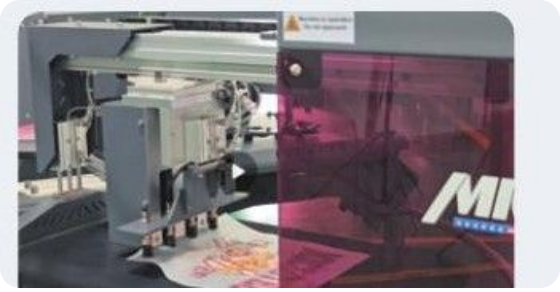
1. Make sure the light is yellow

Green (Auto)? Press **EMERGENCY STOP**, twist it to release, then hold **RESET** until the arm goes home.



2. Pick a program slot

Hold **M1**–**M6** for 2 sec (for example M1).



3. Move to the peel position

Hold ▶. V1 flashes. Tap + / − until the gripper is where the film should be gripped.



4. Set the peel position

Hold ▶. V1 stops flashing — the position is set.



5. Move to the film drop position

Hold ▶ again until V1 flashes. Tap + / − to move to where the used film should drop.



6. Finish

Hold ▶ one last time. "Finish teach!" pops up.



7. Save

Tap **Save**. (Tap **X** to throw it away.)



8. Test it

Tap **Test sw** to turn it ON. Press the green **START** button and watch. Not right? Teach again from the start.

> ⚠ You can only teach when the light is **yellow** (not running in Auto). Keep hands clear while the gripper moves.

Quick reference

I WANT TO…	DO THIS
Start automatic peeling	Pick **M1**–**M6** → green **START**
Send the arm home	Hold **RESET** 2 sec
Reset the counter	Hold **Count** 2 sec
Stop right now	Press **EMERGENCY STOP**

4 Run automatic peeling



1. Check power and air, then turn POWER on

The network cable to the rotary press must be plugged in.



2. Pick your program

Hold M1 – M6 for 2 sec to pick the saved program for this job.



3. Press the green START button

The screen shows AUTO mode and the light turns green.



4. It peels by itself

The X-Peel waits for the signal from the rotary press, then holds the shirt and peels the film. The counter adds 1 each time.

⚠ EMERGENCY STOP is for danger. After using it, twist it to release, hold RESET 2 sec, then press START.

5 If something is wrong

"Servo alarm!" on the screen

1. Turn off the main power.
2. Look for something jammed or blocking the arm, and clear it.
3. Turn the power back on.
4. Still there? The home switch may be loose or broken — call us.

"Cylinder alarm!" on the screen

1. Check that the air is on and the hose is connected.
2. Check the air pressure at your compressor.
3. Still there? A cylinder limit switch may have moved or a wire is loose — call us.

Light is red

1. Is the EMERGENCY STOP pressed in? Twist it to release.
2. Read the message on the screen.
3. Hold RESET 2 sec, then press START.

Doesn't peel when the press finishes

1. Check that the light is green (AUTO). If not, press START.
2. Check the network cable to the rotary press.

Grips in the wrong place

1. Check that the right program (M1–M6) is picked.
2. Teach the peel position again.

Settings not listed here

1. Service settings are for technicians only. Contact MicroTec support.

Specifications

	X-Peel
Works with	APEX X4 / X6 / X8 rotary press
Output	Up to 480 pcs / hour
Power	220V single-phase · 2 kW · 9 A · 60 Hz
Air supply	58 psi (4 bar) · 4.2 CFM
Air	Clean, dry compressed air
Controller	PLC (MX310-32 + TK8072IP)
Size (W × D × H)	1658 × 600 × 1658 mm
Net weight	396 lb
Working room	32–104°F · below 80% RH

Still stuck? Call us.

Phone

(714) 261-9498

Mon–Fri · 7:30 am – 5:00 pm Pacific

Email

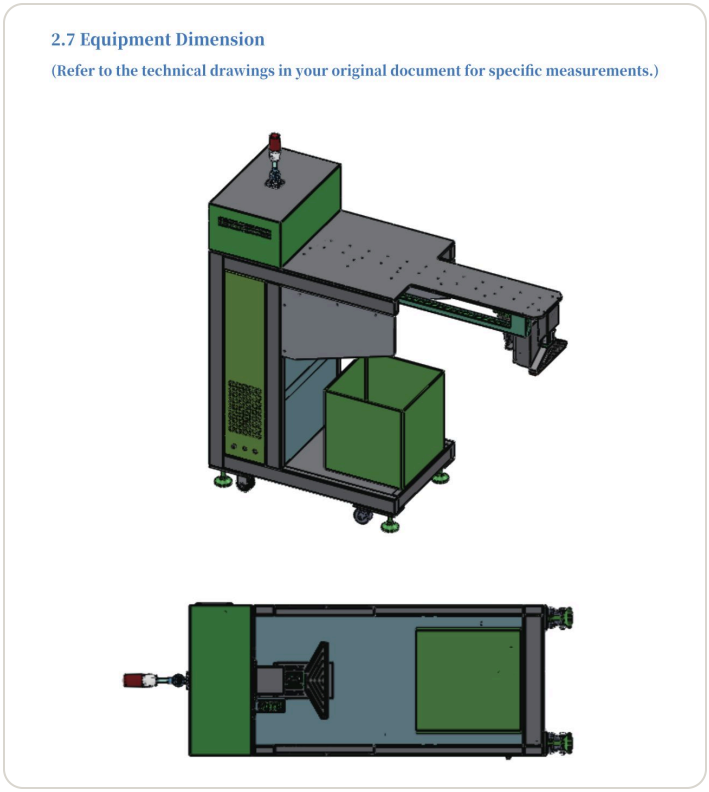
sales@microtecusa.com

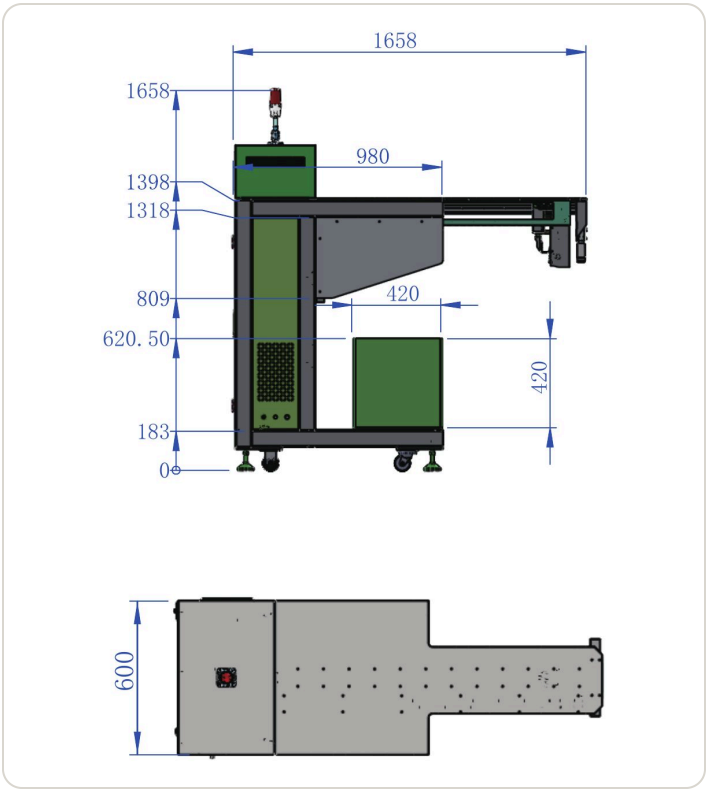
Free lifetime tech support

Dimensions & diagrams

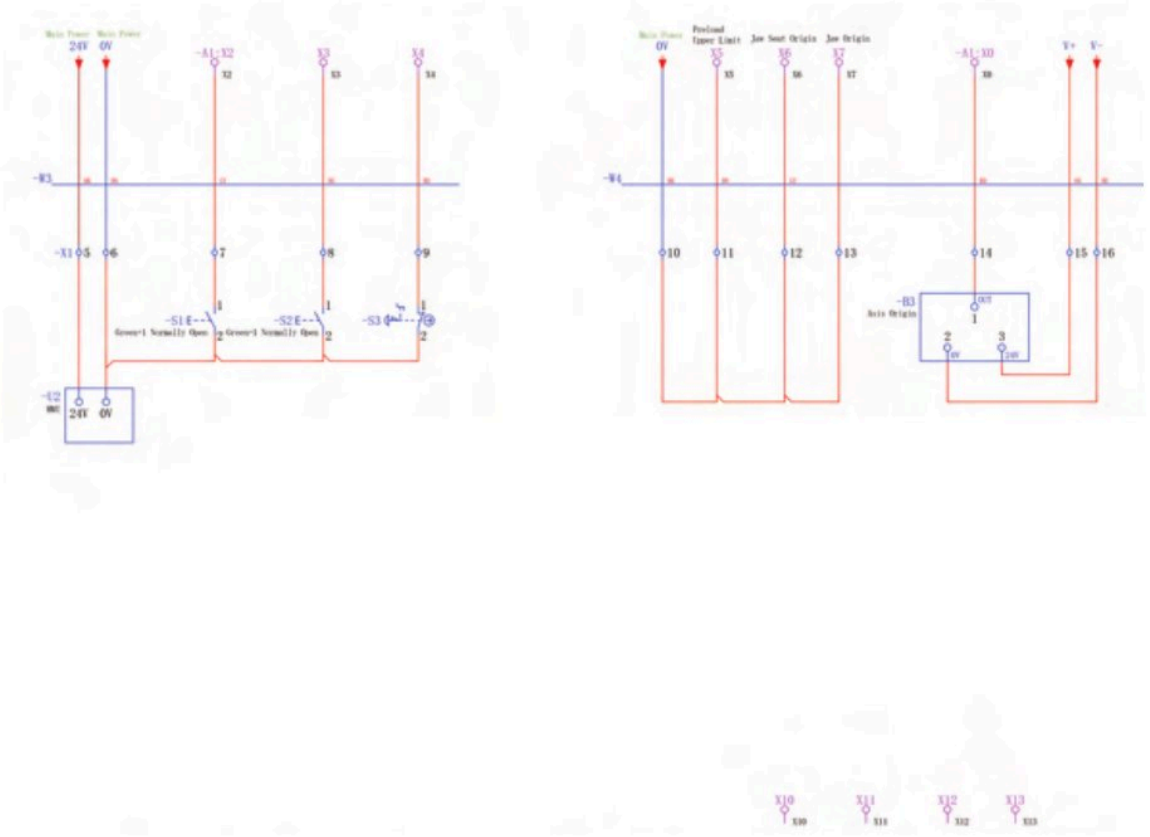
For service technicians. **Unplug the machine** and **disconnect the air** before opening any cover.

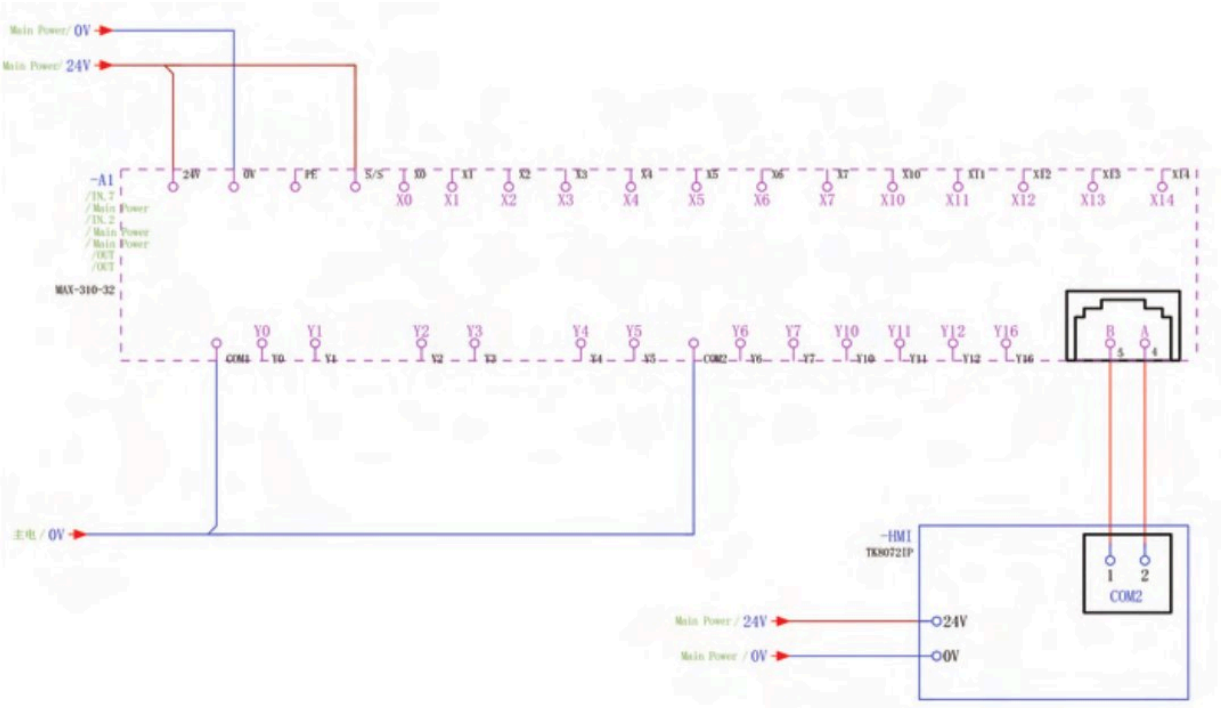
Dimensions (mm)

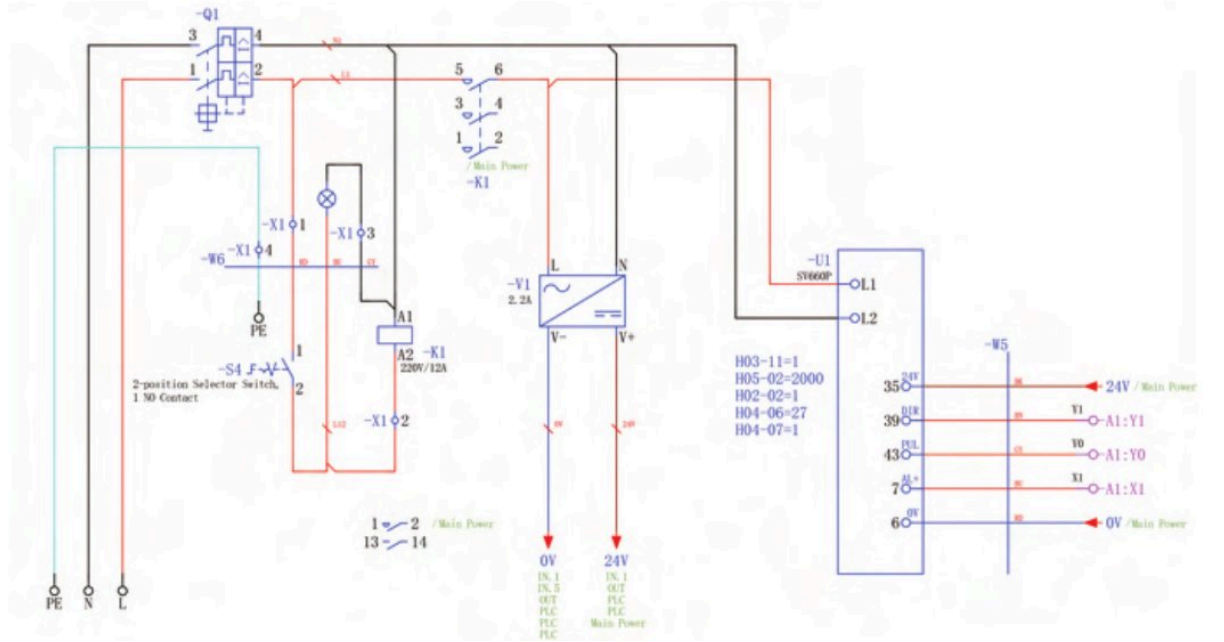


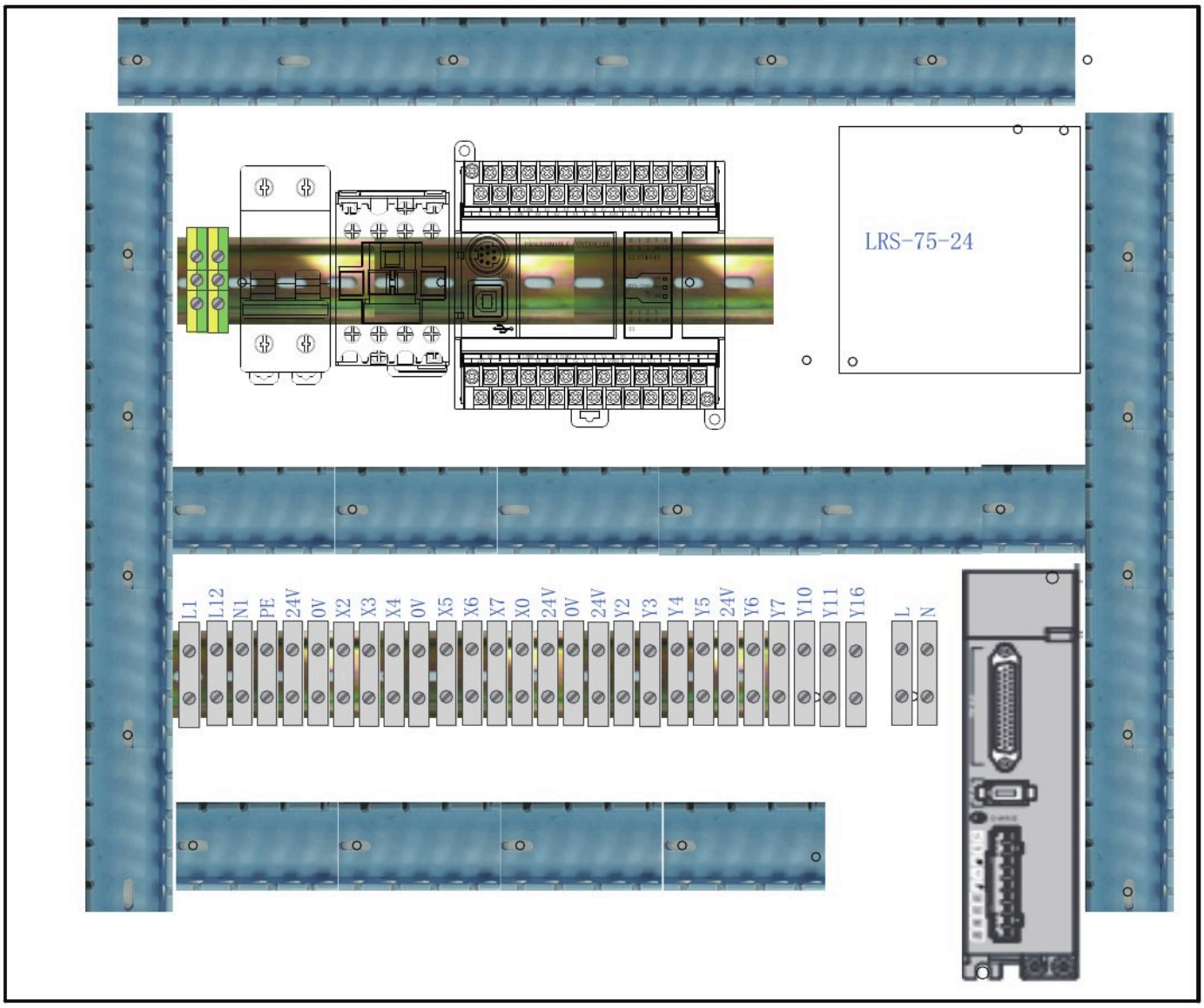


Wiring diagram

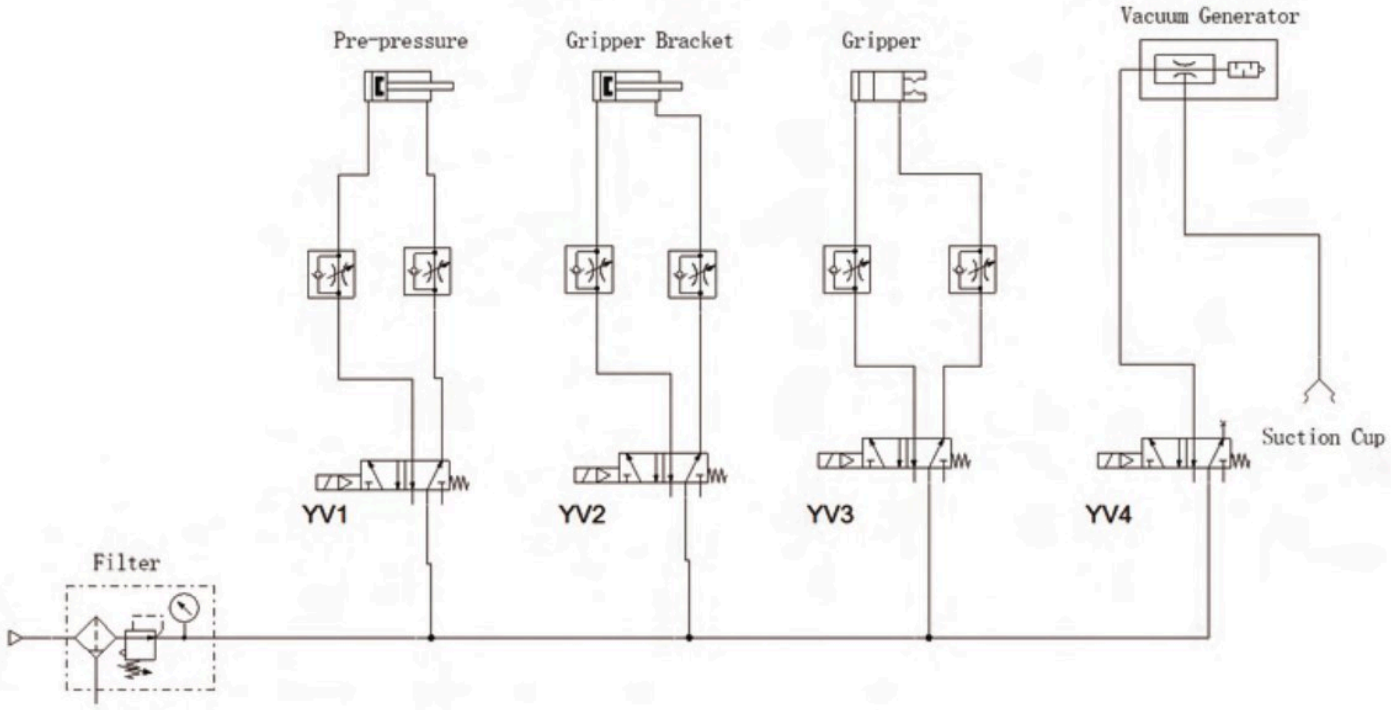



Main Power/ 0V
Main Power/ 24V
-A1
MAX-310-32
24V
0V
PE
S/S
X0
X1
X2
X3
X4
X5
X6
X7
X10
X11
X12
X13
X14
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y10
Y11
Y12
Y16
COM1
COM2
B
A
主电 / 0V
-HMI
TK8072IP
1
2
COM2
Main Power / 24V
Main Power / 0V
24V
0V


-Q1
-K1
/Main Power
-X1
-W6
PE
-S4
2-position Selector Switch,
1 NO Contact
A1
A2
-K1
220V/12A
-V1
2.2A
L
N
V-
V+
0V
24V
-U1
SY660P
L1
L2
H03-11=1
H05-02=2000
H02-02=1
H04-06=27
H04-07=1
-W5
35
39
43
7
6
24V /Main Power
Y1
A1:Y1
Y0
A1:Y0
X1
A1:X1
0V /Main Power
PE
N
L


LRS-75-24
L1
L12
N1
PE
24V
0V
X2
X3
X4
0V
X5
X6
X7
X0
24V
0V
24V
Y2
Y3
Y4
Y5
24V
Y6
Y7
Y10
Y11
Y16
L
N

Air diagram


Pre-pressure
Gripper Bracket
Gripper
Vacuum Generator
Suction Cup
YV1
YV2
YV3
YV4
Filter