MICROTEC

APEX MAX QUICK GUIDE

XR1620

APEX Max Roll-to-Roll 16×20 DTF Heat Press

One picture per step. Follow the steps in order.



! Safety first

The heat plate gets very hot
Up to 450°F. Never reach under the press head. Keep children and pets away.

220V, well grounded — electrician only
Grounded 220V, 60 Hz, 10.5 A. Ground must be under 4 ohms. No extension cords.

Parts move by themselves
The table, film and heat plate move on their own. Keep hands, hair and sleeves clear.

Indoors, dry, airy room
Level, solid floor. 41–104°F room. Away from water, dust and anything that can burn.

Emergency? Press a red **EMERGENCY STOP** button (on the control panel or the press head). The heat plate lifts, the film goes to its highest position, and pressing stops. Then turn off the power.

1 Unbox



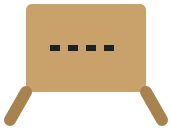
1. Check the shipment before you sign

It comes by freight truck. If anything looks damaged, write it on the delivery paper.



2. Move it with a forklift or pallet jack

It is heavy and tall. Never lift it by the rollers, doors or press head.



3. Unpack it where it will be used

Remove all packing material and straps.



4. Keep all packaging

You will need it if the machine ever has to come back for service.

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2 Set up



1. Roll it onto a level, solid floor

Leave room around it to load film and reach the shuttle table.



2. Plug the power cord (2) into a 220V outlet

The power cord comes out low on the right side of the cabinet (2). Have an electrician install a grounded 220V, 60 Hz, 10.5 A outlet (ground under 4 ohms). A regular 110V outlet will not work.



3. Connect the air hose (1)

From your air compressor to the air inlet (1), just above the power cord on the right side of the cabinet.



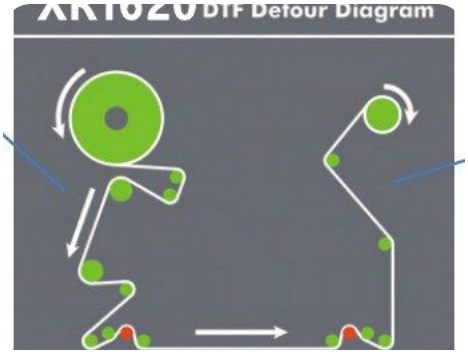
4. Plug in the foot pedal

Its cable plugs into the socket low on the left side of the cabinet. Push it in and tighten. Put the pedal on the floor where your foot can reach it. Check: power cord, air hose and foot pedal — 3 connections.



5. Turn on, then press and release E-STOP

Turn the POWER key switch on. Then press the EMERGENCY STOP in and release it. Do this every time you turn it on.



6. Load the DTF film

New roll on the upper right shaft (unwind), empty core on the lower right shaft (rewind). Thread the film over every roller exactly as the routing diagram shows, through the web guide sensor and past the color mark sensor. Tighten both shafts.

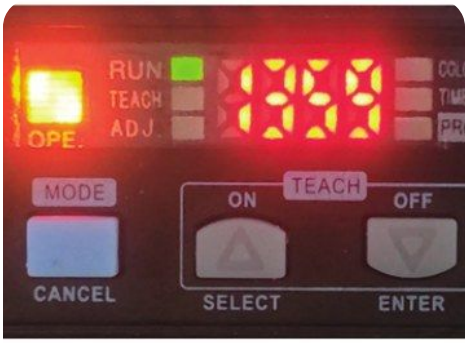
7. Set the film tension

Snug, not too tight. Too tight stops the used film from rolling up.



8. Center the web guide

On the web guide box: press MANUAL, then CENT. Move the sensor until the display reads 0. Press AUTO.



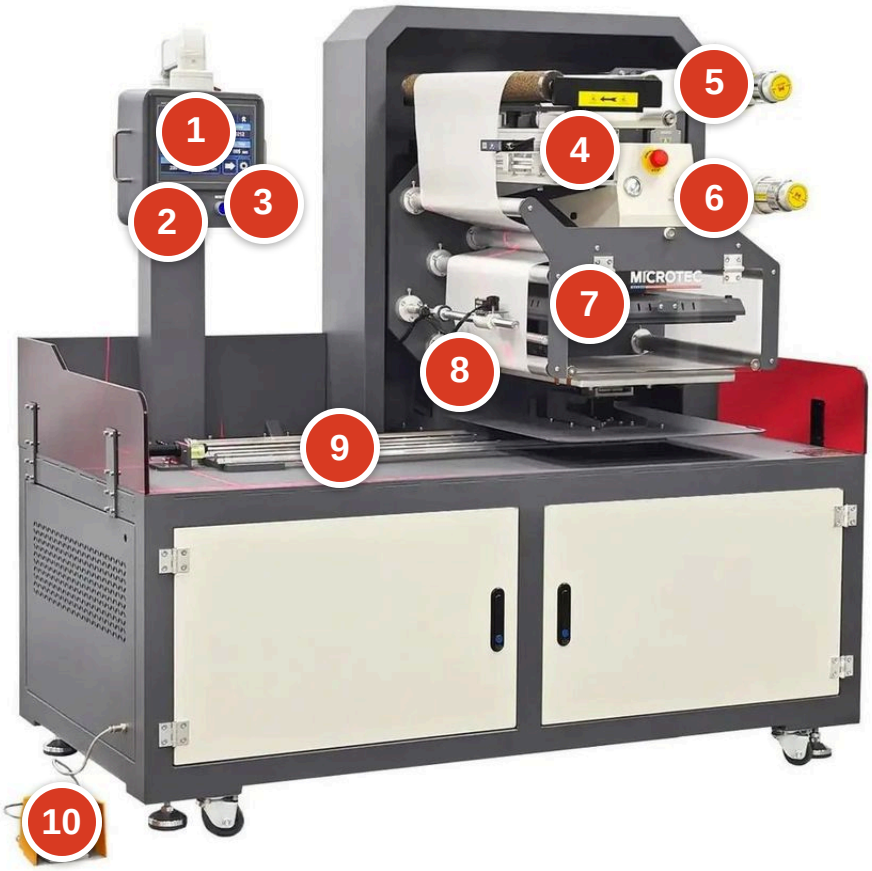
9. Teach the color mark sensor

Aim the light at the longest part of the design. Press MODE for TEACH. Light on the mark → ON. Light on the background → OFF.

Your design plus the gaps on each side must be wider than the heat plate. Design width must be under 15″ (38 cm).

⚠ If the screen asks for a password when you turn it on, call us.

3 Know your machine



1 Touchscreen
Temperature, times and film settings.

2 POWER key, START, RESET
POWER = on / off. START = feed the table in and press. RESET = send table, plate and film back home.

3 EMERGENCY STOP buttons
One on the panel, one on the press head.

4 Web guide controller
Keeps the film lined up.

5 Unwind shaft (new film)
Holds the new DTF roll. Tightens to grip it.

6 Rewind shaft (used film)
Rolls up the used film.

7 **Heat plate (HOT)**
Do not touch.

8 **Encoder wheel**
Measures how far the film moved.

9 **Shuttle table**
Lay the garment here. It slides in and out by itself.

10 **Foot pedal**
Step lightly to start, instead of the START button.

11 **Air pressure gauge and knob**
On the press head, under the small screen. Sets and shows how hard the plate presses. Clockwise ↻ = more pressure, counter-clockwise ↺ = less. If the knob won't turn, pull it up first; push it down to lock. Turn a little at a time and watch the gauge.

12 **Laser lights**
Help you place the garment on the table.

13 **Color mark sensor and sensor knob**
Finds each design. The knob moves the film-edge sensor.

14 **Air inlet and power cord**
Lower right side of the cabinet.

4 Touchscreen



1 T (Test)
Film test mode. The plate does not heat-press.

2 R (Reset)
Zeroes the film position. Press after every new roll.

3 PV / SV
PV = temperature now. SV = temperature you set (tap to type).

4 Counter
Presses done. Hold 5 sec to clear.

5 T1 / T2
First and second press time. T2 = 0 means one press only.

6 Delay Time
How long before the film lifts.

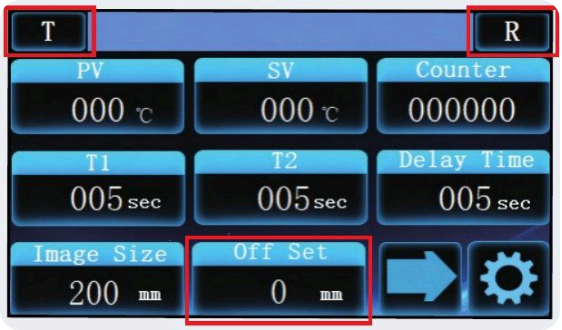
7 Image Size
Length of one design, in mm.

8 Off Set
Moves the design left (–) or right (+), in mm, as you face the machine.

9 **→ (arrow)**
Moves the film 2 mm per tap. Hold 2 sec to keep feeding.

10 **⚙ (gear)**
Settings: °C / °F, move parts by hand, speed.

Line up the film (do this after every new roll)



1. Tap R

Zeroes the film position.

2. Tap T

Test mode. The plate will not press.

3. Press START or the foot pedal

The film moves and stops with the design at the plate center.

4. Check and fix with Off Set

Off center? Change Off Set. Press again to check the next design.

5. Tap T again

Back to normal pressing.

Design size changed? Update Image Size, teach the color mark sensor again, and redo the steps above.

In the ⚙ screen, change only °C / °F unless we ask you to. Plate, film and table moves must go in order — if nothing happens, call us.

Quick reference

I WANT TO…	DO THIS
Change the temperature	Tap **SV** → type
Change press time	Tap **T1** (and **T2**) → type
Press only once	Set **T2** to 0
Loaded a new roll	Tap **R**
Feed the film a little	Tap **→** (hold 2 sec to keep going)
Clear the counter	Hold **Counter** 5 sec
Switch °C / °F	**⚙** → **°C** or **°F** → **Back**

Ranges: temperature 0–450°F · press time 0–999 sec.

5 Your first press



1. Set temperature, T1, T2 and Image Size

Use your transfer supplier's settings. Wait for PV to reach SV.



2. Make sure the film is lined up

New roll? Do R and T first (see Touchscreen).



3. Lay the garment flat on the shuttle table

Use the laser lines to place it.



4. Press the green START button

Or step lightly on the foot pedal. The table slides in and presses.



5. The table comes back out by itself

Take the garment off. Load the next one and repeat.

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6 If something is wrong

Table, plate or film stuck out of place

1. Press the blue RESET button. Everything goes back home.

Won't turn on

1. Check the 220V power to the machine.
2. The breaker inside the electrical cabinet may have tripped. Call us before resetting it.
3. Check the POWER key switch.

Used film won't roll up

1. The rewind tension may be too tight. Lower it a little.
2. Turn the power off and on again.

Can't find the design / film keeps running

1. Teach the color mark sensor again.
2. Lower the film speed.
3. Tap R to reset.

Won't start

1. Message on screen? Press and release EMERGENCY STOP to reset.
2. Foot pedal not working? Try the START button.
3. Check the speed setting is not 0.
4. Check the air is on and the pressure is normal.

Alarm message on the screen

1. Press and release EMERGENCY STOP to clear it.
2. Comes back? Write down the message and call us.

Specifications

	XR1620
Plate size	15.7″ × 19.6″
Max design width	under 15″ (38 cm)
Power	220V · 2.3 kW · 10.5A · 60Hz
Temperature	0–450°F
Timer	0–999 s
Controller	PLC touchscreen (XD3-32T-E + TPC1021ET)

Still stuck? Call us.

Phone

(714) 261-9498

Mon–Fri · 7:30 am – 5:00 pm Pacific

Email

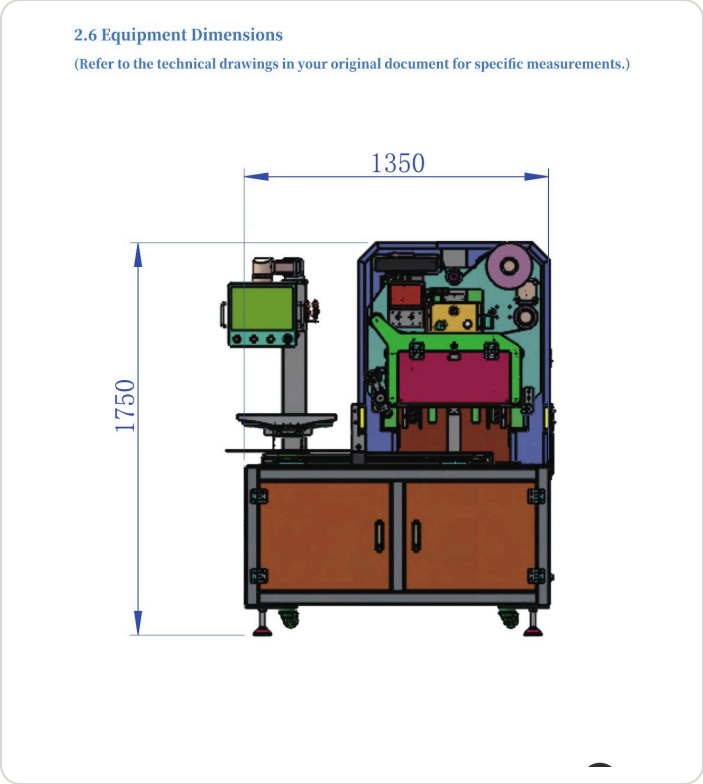
sales@microtecusa.com

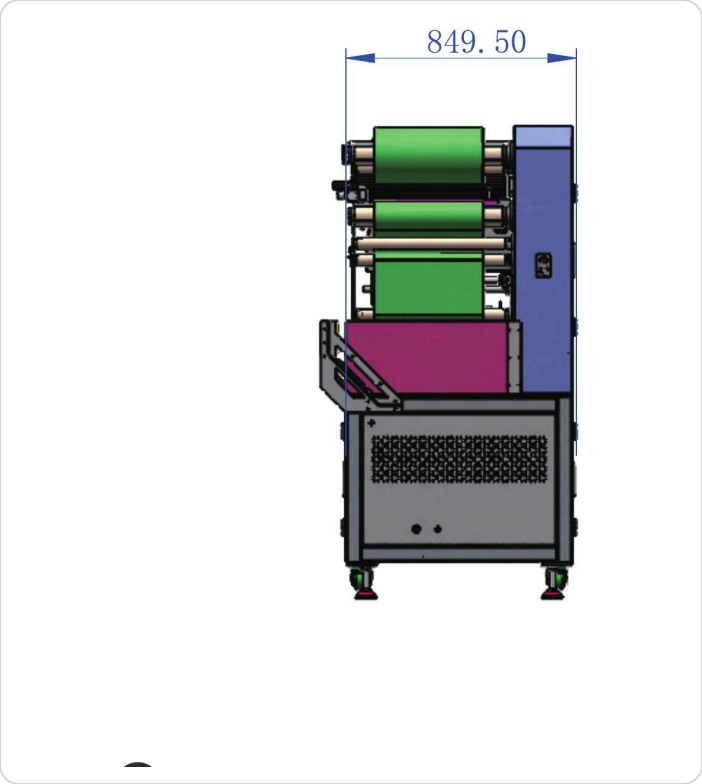
Free lifetime tech support

Dimensions & diagrams

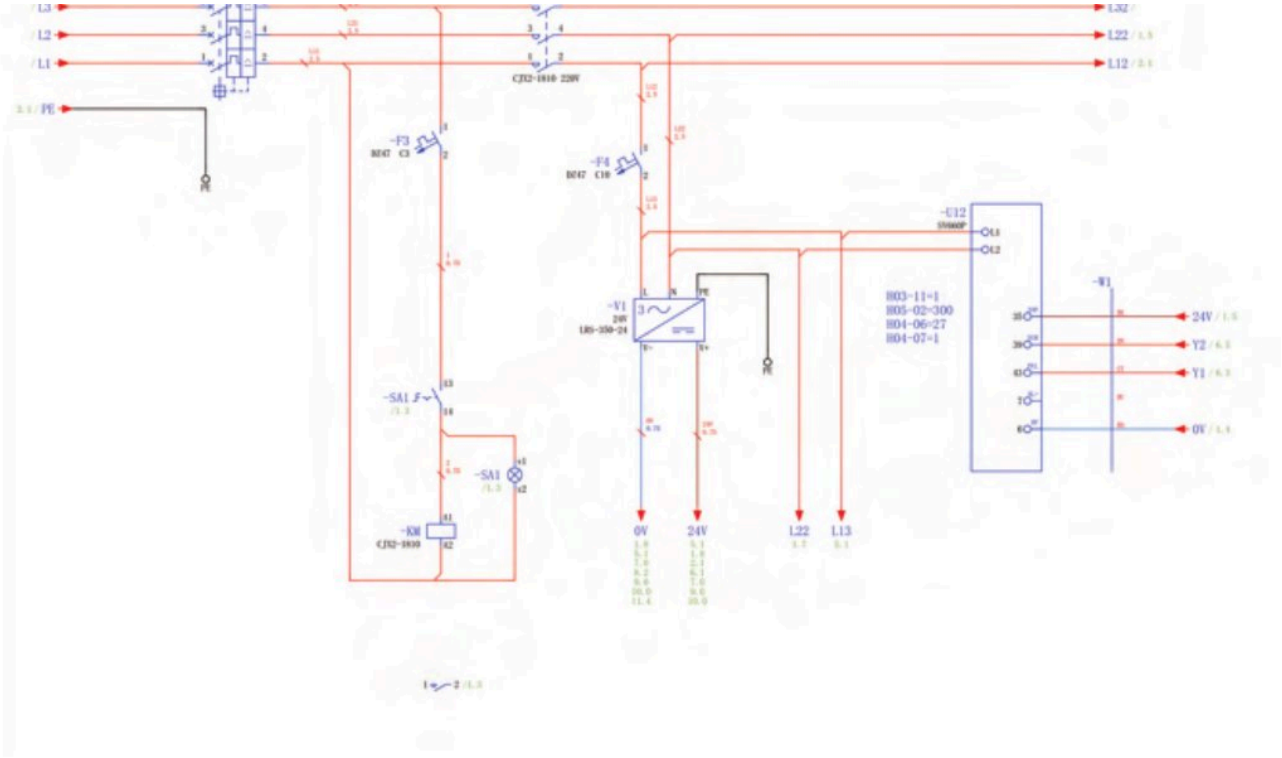
For service technicians. **Unplug the machine** and **disconnect the air** before opening any cover.

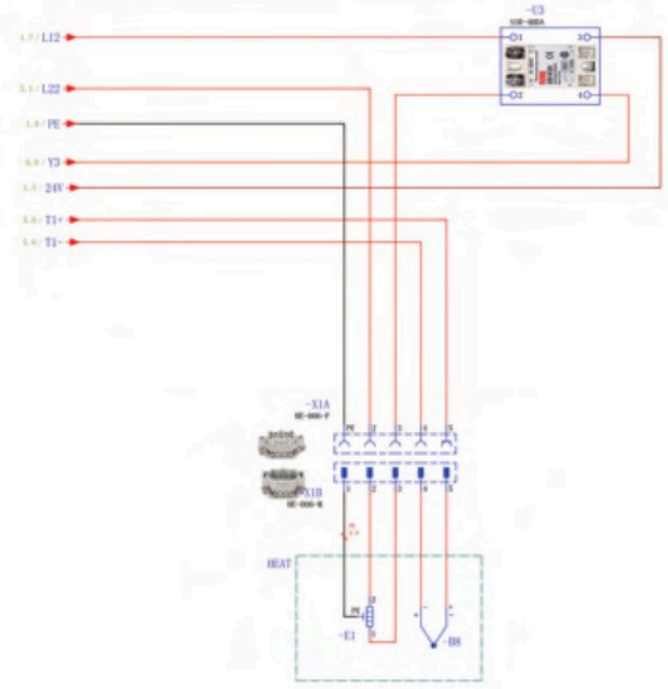
Dimensions (mm)

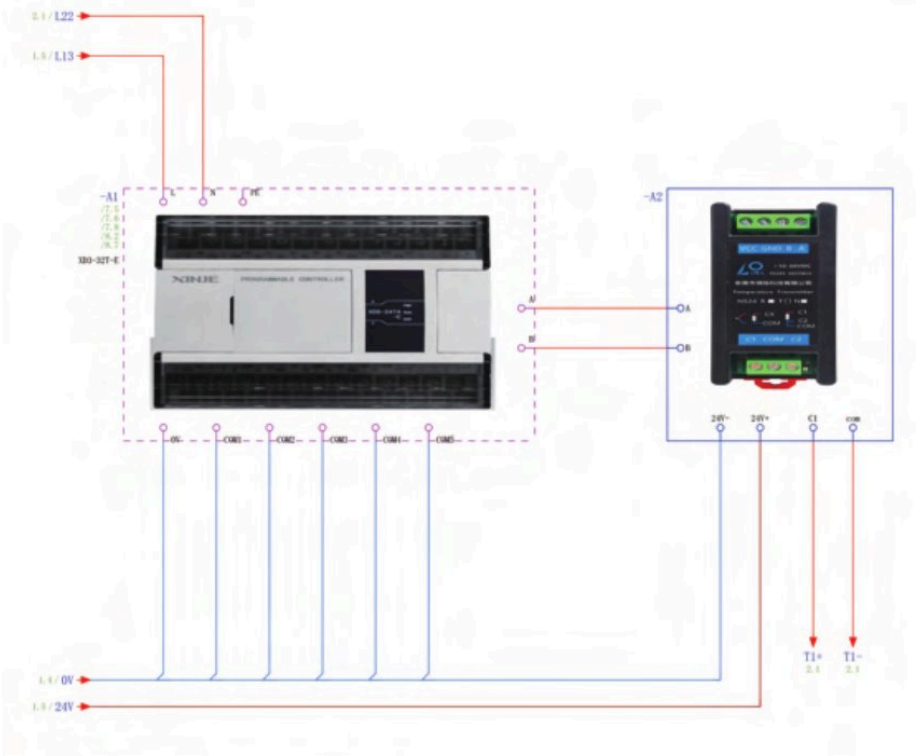


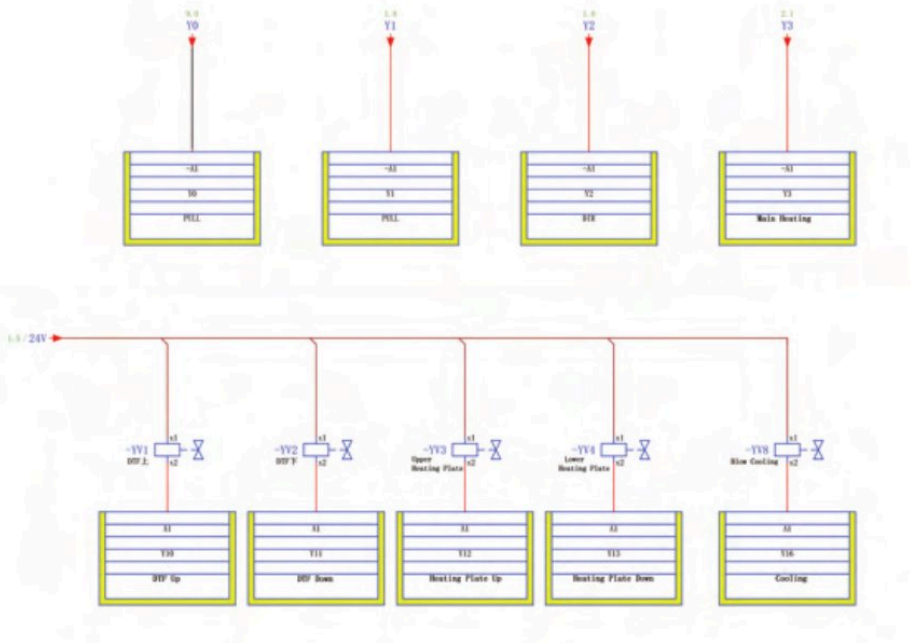


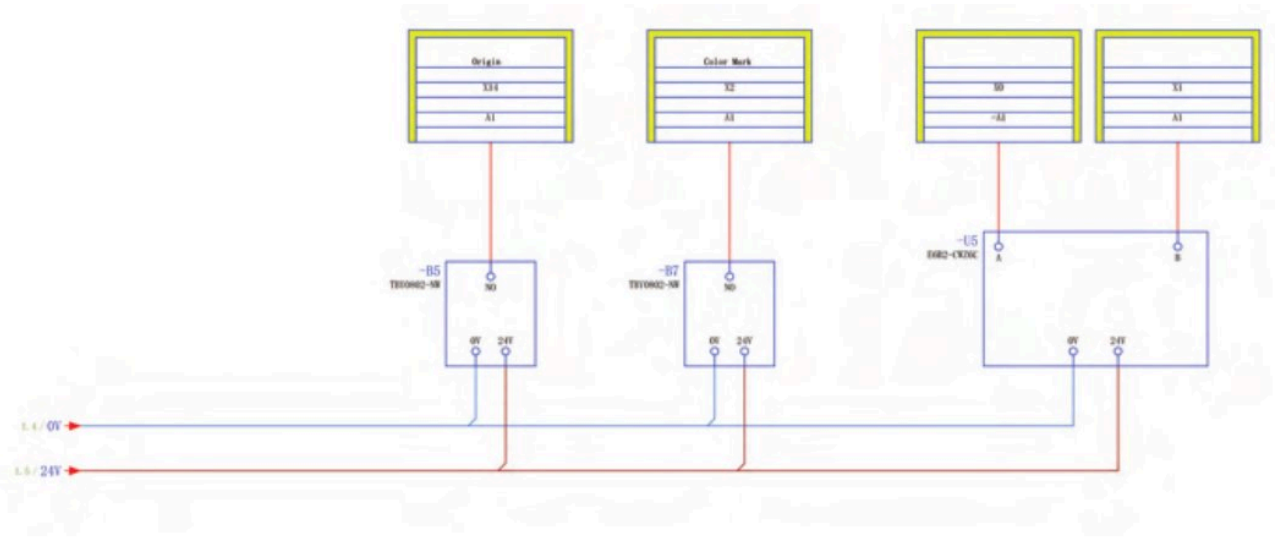
Wiring diagram

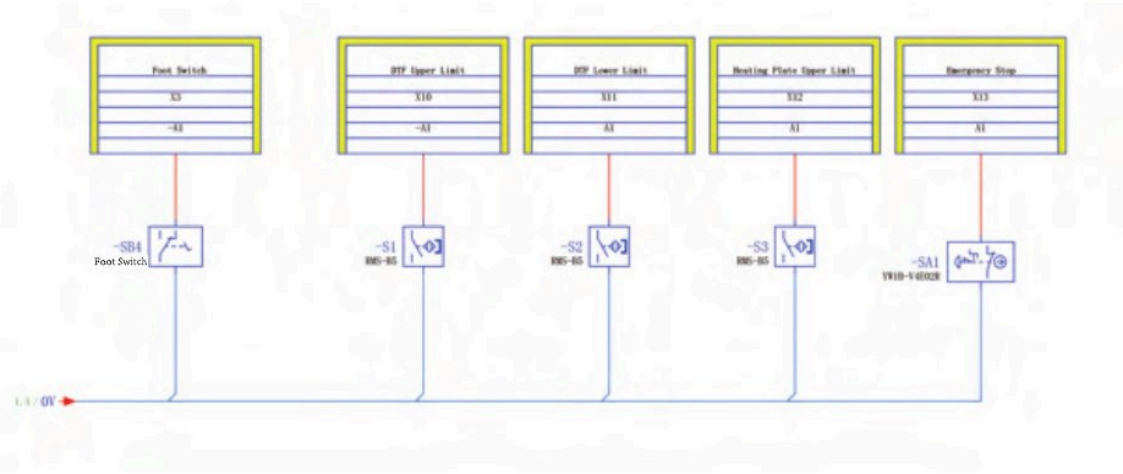


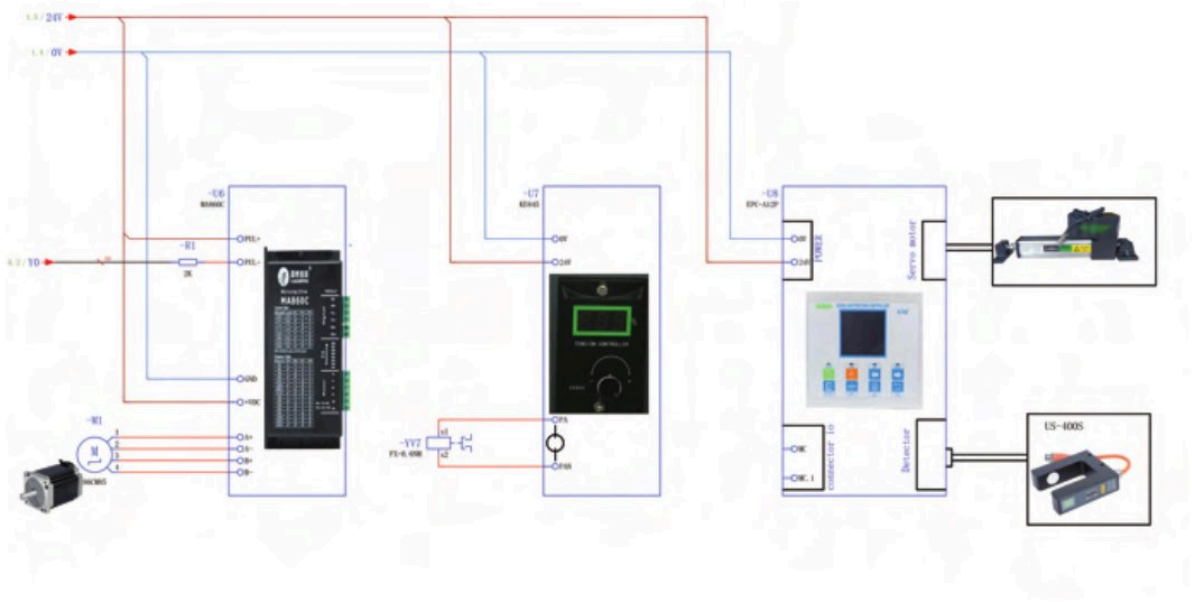


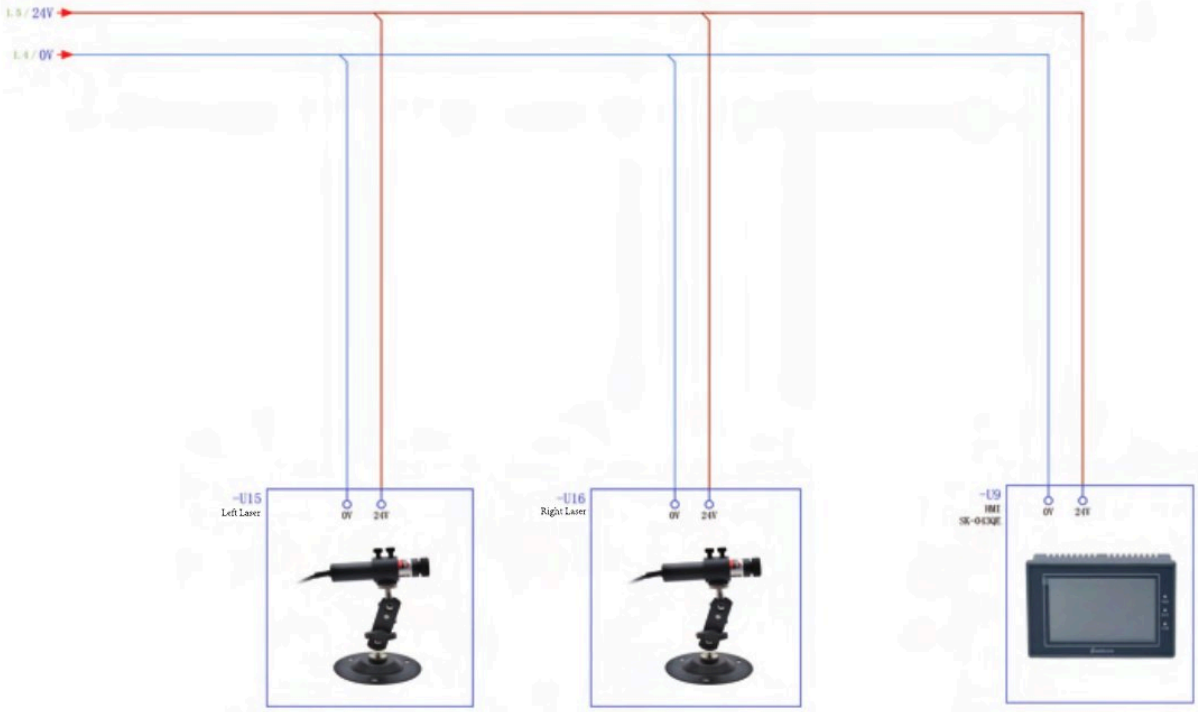

L22
L13
-A1
XD-32T-E
-A2
A
B
24V-
24V+
C1
com
0V-
COM1
COM2
COM3
COM4
COM5
T1+
T1-
0V
24V

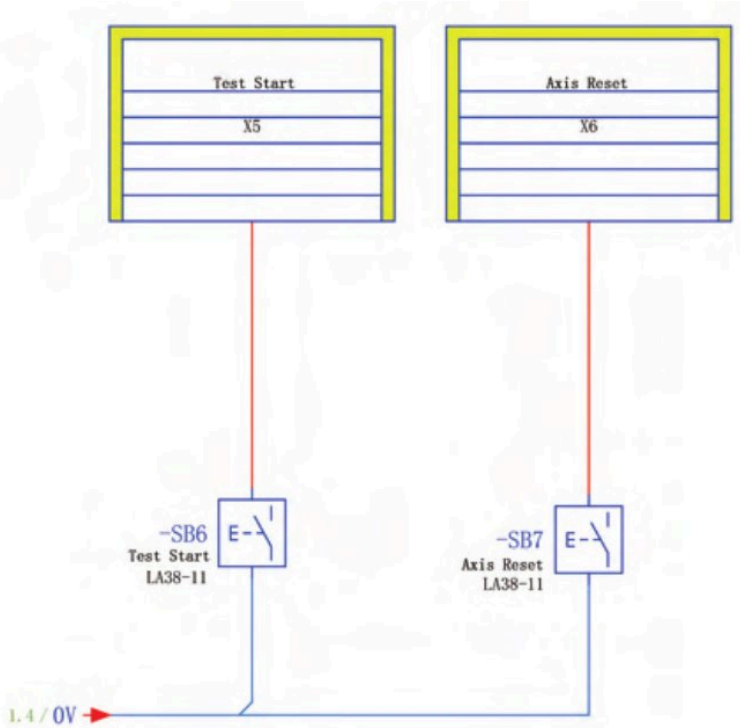

Y0
Y1
Y2
Y3
-A1
Y0
PILL
Y1
PILL
Y2
DIE
Y3
Main Heating
24V
-YV1
DIF上
-YV2
DIF下
-YV3
Upper
Heating Plate
-YV4
Lower
Heating Plate
-YV8
Blow Cooling
x1
x2
Y10
DIF Up
Y11
DIF Down
Y12
Heating Plate Up
Y13
Heating Plate Down
Y16
Cooling

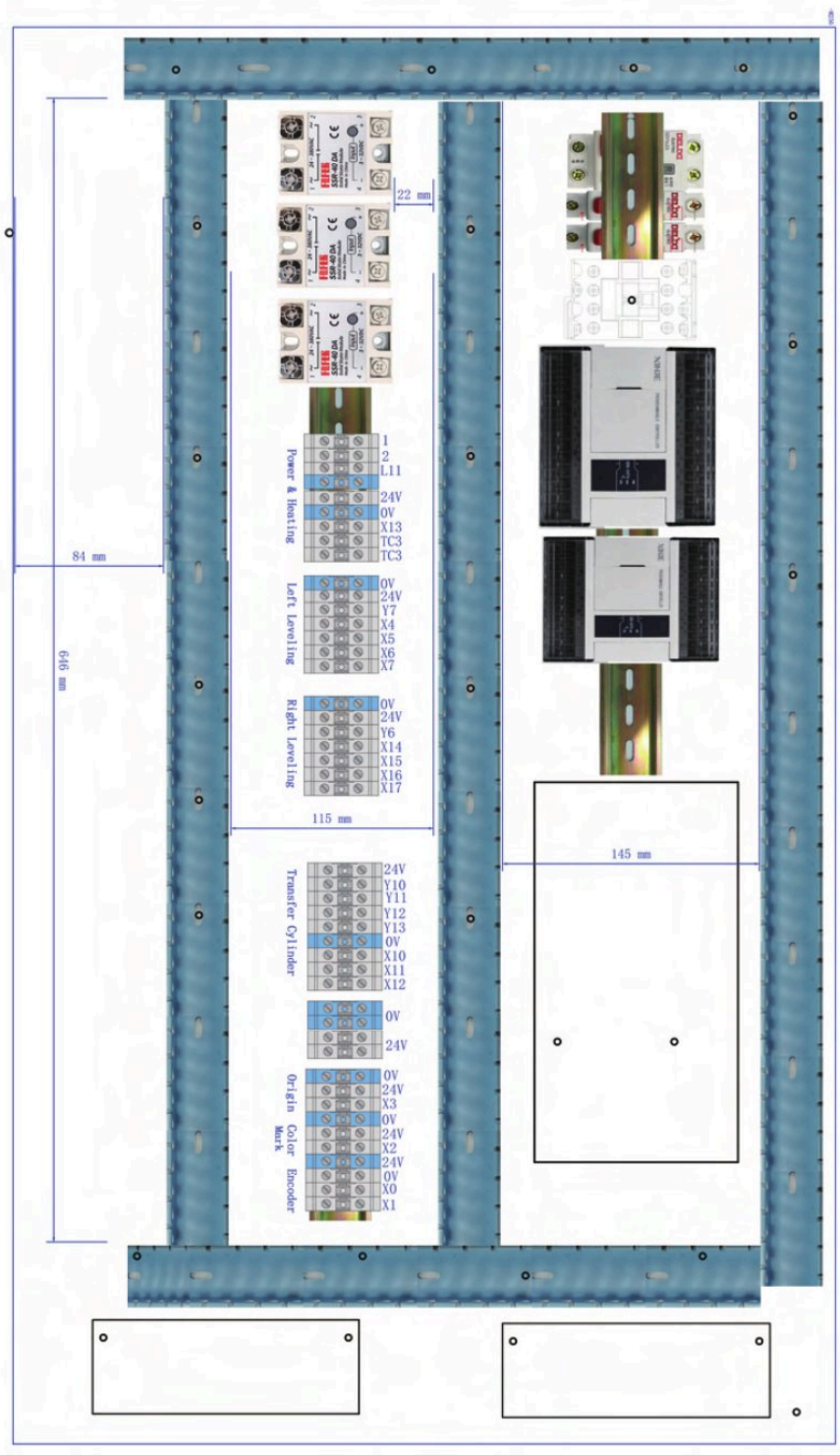

Origin
X14
A1
Color Mark
X2
A1
X1
A1
-B5
NO
0V
24V
-B7
NO
0V
24V
-U5
A
B
0V
24V
0V
24V


Foot Switch
X3
-A1
DTF Upper Limit
X10
-A1
DTF Lower Limit
X11
A1
Heating Plate Upper Limit
X12
A1
Emergency Stop
X13
A1
-SB4
Foot Switch
-S1
-S2
-S3
-SA1
0V

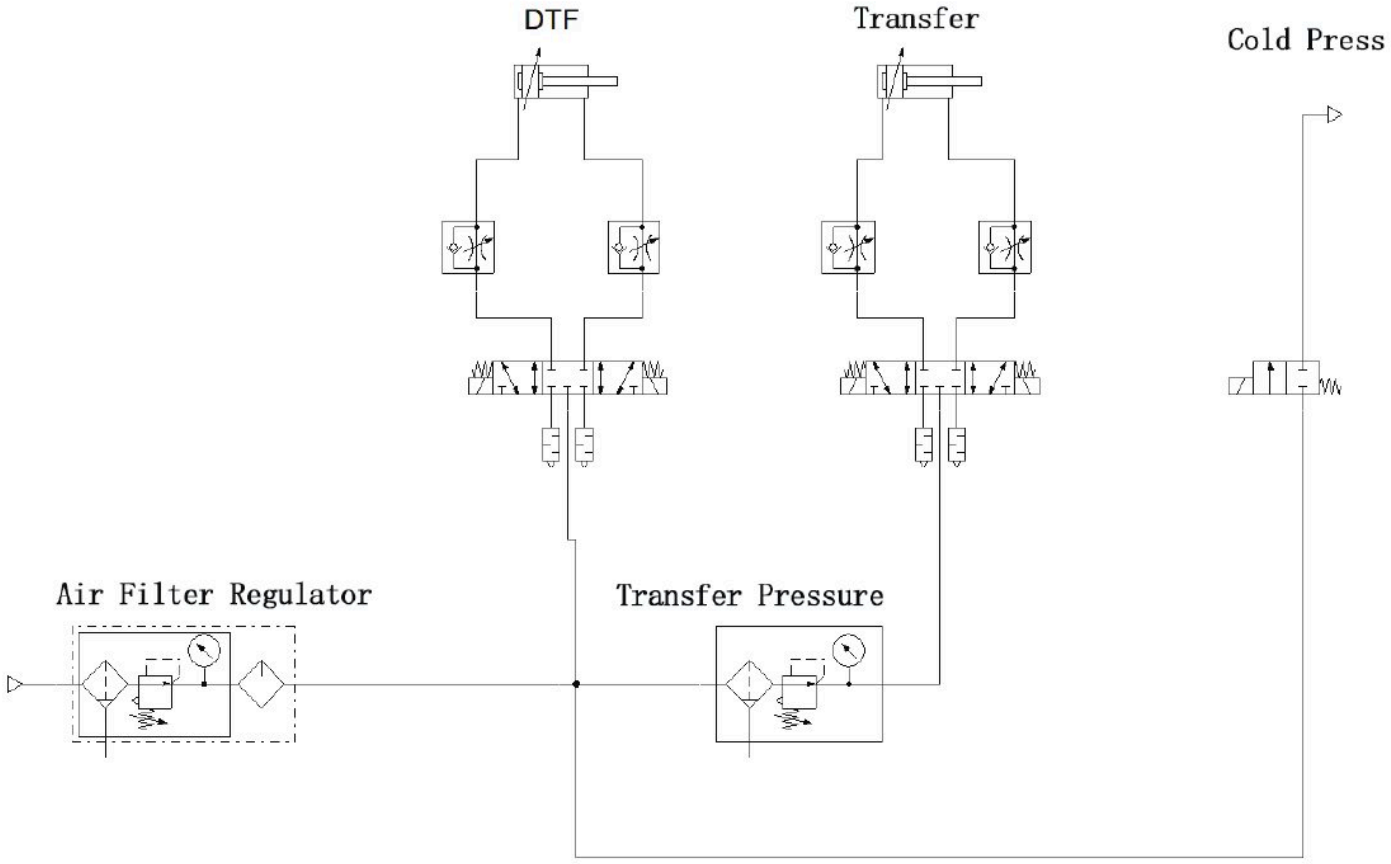

L5 / 24V
L4 / 0V
-U6
-R1
2K
-R1
-U7
-YV7
-U8
Servo motor
Detector
US-400S


L5 / 24V
L4 / 0V
-U15
Left Laser
0V
24V
-U16
Right Laser
0V
24V
-U9
0V
24V


Test Start
X5
Axis Reset
X6
-SB6
Test Start
LA38-11
-SB7
Axis Reset
LA38-11
1.4 / 0V


22 mm
84 mm
646 mm
115 mm
145 mm
Power & Heating
1
2
L11
24V
0V
X13
TC3
TC3
Left Leveling
0V
24V
Y7
X4
X5
X6
X7
Right Leveling
0V
24V
Y6
X14
X15
X16
X17
Transfer Cylinder
24V
Y10
Y11
Y12
Y13
0V
X10
X11
X12
0V
24V
Origin Color Mark Encoder
0V
24V
X3
0V
24V
X2
24V
0V
X0
X1

Air diagram


DTF
Transfer
Cold Press
Air Filter Regulator
Transfer Pressure