



APEX

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Model: X6

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X6 User Manual

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Overview

1.1 Equipment Overview

Thank you very much for choosing our company's X6 Automatic Heat Transfer Equipment!

Please read this instruction manual thoroughly before operation to ensure proper usage.

Keep this manual in a safe place for future reference.

Due to different product configurations, some machines may not feature all functions listed in this manual. Please refer to your specific model's actual operational features for exact details.

1.2 Safety Precautions

NOTICE



The manufacturer is not responsible for damage, injury, production loss, or other losses caused by improper operation, unauthorized modification, incorrect installation, incompatible parts, or service by unqualified personnel.

1.3 Operating Environment

- Storage Environment Temperature: 32–122°F
- Storage Environment Relative Humidity: 80% or below (non-condensing).
- Working Environment Temperature: 32–104°F
- Working Environment Relative Humidity: 80% or below (non-condensing).
- Stable, level, heat-resistant work surface
- Keep away from water, excessive dust, corrosive gases, flammable materials, and explosive vapors

1.4 Equipment Power Supply and Grounding

1.4-2 Grounding Requirements:

To prevent electric shocks or fire hazards caused by electrical leakage, overvoltage, or insulation failure, please ensure that the power control system is reliably grounded.

The grounding resistance must be less than 4 ohms, the wire length must be within 20 meters (approx. 65 feet), and the wire cross-sectional area must be greater than 4 square millimeters.

1.4-3 Technical Parameters:

Parameter	Specification
Model No.	X6
Controller	PLC(MX310-32 + MT8106iQ)
Amp \ Voltage \ Power \ Phase	23A\220V(3)\8.5KW, 60HZ
Time Range (S)	0~999
Temperature Range (°F)	0~450
Heating Platen Size (in)	15.7*19.6

Appearance and Functions

2.1 Exterior View

(Please refer to the images in your original document for labels 1 through 14.)



2.2 Component Names and Their Functions

1. Pressure Regulating Valve: Allows independent adjustment of the transfer pressure for each heating plate.

2 & 4. Infrared Aligners: Allows rapid positioning and placement of materials.

3. Machine Status Indicator Light: Green, The machine is running in Automatic Mode.

○**Yellow:** The machine is in Standby Mode.

○**Red:** The Emergency Stop is pressed or an abnormal condition has occurred. Please check the alarm prompt on the touchscreen.

5. Power Switch: Turns the machine power ON and OFF.

6. Start Button: Tap once to enter Automatic Mode; the status indicator light will turn. green.

7. Stop Button: Press and hold for 2 seconds. The button's internal red indicator light will flash, and the machine will stop running after completing all current transfer tasks.

8 & 11. Emergency Stop Button (E-STOP): When an abnormality occurs, press the emergency stop button to stop the machine immediately. This turns off the heating and transfer functions for all stations. The status indicator light will turn red, and the machine automatically switches to Manual Mode. After troubleshooting, please press "Homing" to return the machine to its home origin.

9. PLC Touchscreen Controller: Controls machine movements and program configurations.

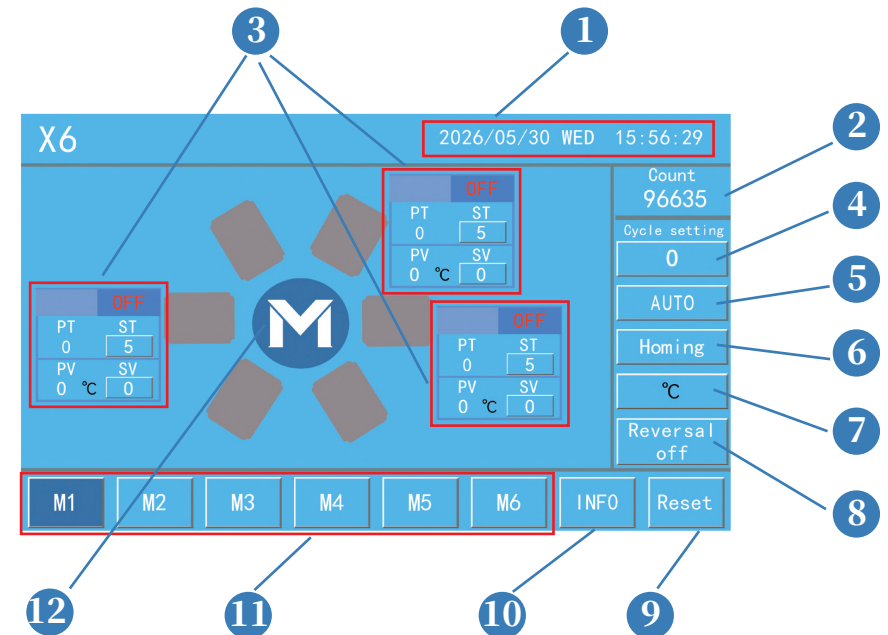
10. Test Button: In Manual Mode, tap once to press down the heating plate at the current station for a test transfer. The "TEST" button on the touchscreen performs the same function.

12. Network Port: Communication interface for connecting to SSE-01/SSE-02. Please note the connection direction. This is an optional feature.

13. Air Supply Inlet: Provides the required air supply for entire machine operation.

14. Power Cord: Supplies the main power required for the machine.

2.3 PLC Touchscreen Controller Interface and Functions

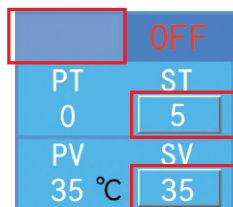


1. Date Display and Setting: Long press this area to set the current time zone's date and time.

2.Count: The counter increments by 1 upon completing each transfer cycle. Long press this area to reset the count to 0.

3.Heating Plate Configuration Area: Tap the designated zones on the screen to perform the following:

- Turn ON or OFF the temperature heating for the current heating plate.
- Set the transfer time at the **ST** position.
- Set the transfer temperature at the **SV** position.
- View the actual current transfer temperature and elapsed time at the **PT/PV** display.



4.Cycle Setting: Sets the delay time before executing the station index/rotation after a transfer cycle ends.

5.Auto/Manual: Tap to toggle between Automatic and Manual modes.

6.Homing: After daily startup and after releasing the emergency stop switch, please press this key to allow the machine to return to its origin, ensuring the heating plates are properly aligned with the base platens.

7.°C/°F: Tap to switch between Celsius and Fahrenheit temperature units.

8.Reversal Off: When not equipped with an SSE-01 or SSE-02 unit, this function can be enabled to set the machine to rotate in reverse.

9.Reset: Clears cached workflow data.

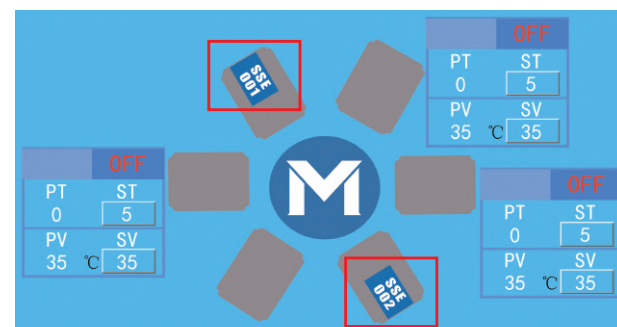
10.INFO: View current error and fault message logs.

11.Parameter Saving: Select the desired memory recipe group (M1-M6) and hold for 2 seconds. Then modify the transfer time and temperature for each station; changes will be saved automatically.

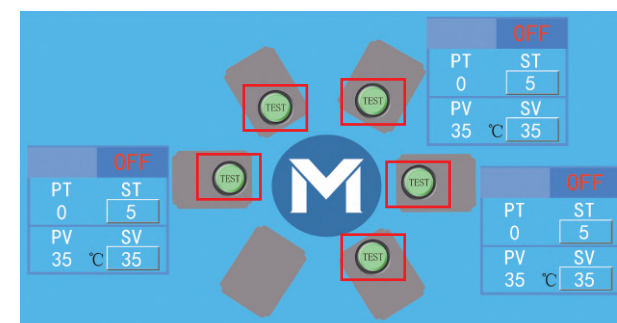
12.M: In Manual Mode, long press this central area for 2 seconds to execute a single station index/rotation.

Interface Notes:

1.When optional **SSE-01** or **SSE-02** units are connected, online status labels will appear on the station diagram.



2.In Manual Mode, green **"TEST"** buttons will appear on the station icons. Tapping a station's **"TEST"** button commands that specific station's heating plate to press down.



2.4 Startup Preparation

1. Confirm that the equipment is connected to a power supply meeting the specifications.
2. Confirm that a clean, dry air supply is connected.



3. When not equipped with SSE-01 or SSE-02 units, turn ON the main **"Power"** Switch on the operation panel. The equipment will power up and enter the main home screen interface.



4. When equipped with SSE-01 or SSE-02 units, turn ON the main **"Power"** Switch on the operation panel. The equipment will power up and enter the online home screen interface.

2.5 Manual Operation



1. Tap the **"AUTO"** key to enter Manual Mode. The corresponding **"TEST"** buttons for each station will appear (functioning identically to the physical test buttons on the station panels) to allow touch-controlled manual cycling. Press and hold the central **"M"** icon for 2 seconds to index to the next station slot. Repeat as needed for cyclic manual operations.



5. In Manual Mode, press the **"Homing"** key and wait for the rotary platens to automatically return to the mechanical origin.

2.6 Automatic Operation



1. Confirm that the touchscreen mode button is toggled to the "AUTO" state. manual operations.



2. If all station platens are completely empty, tap the touchscreen "RESET" key before initiating automatic startup. A confirmation dialog box will pop up; press "YES" to clear cached workflow data.



3. Press the green physical "START" button on the operation panel. A confirmation dialog box will pop up. After verifying that the machine area is clear and safe, press "YES" to begin automatic operation; otherwise, press "NO" to exit.



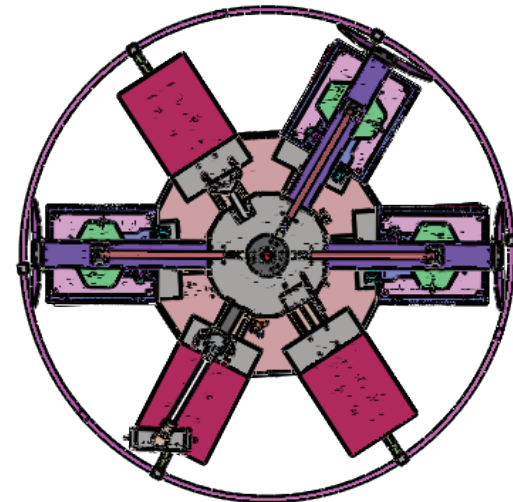
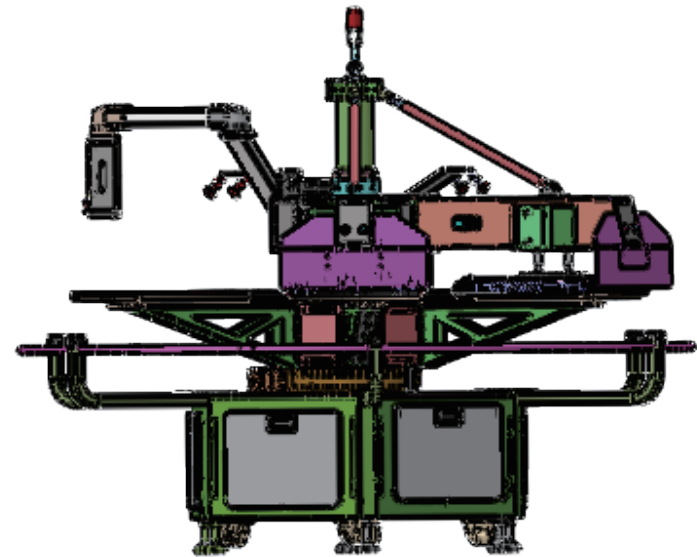
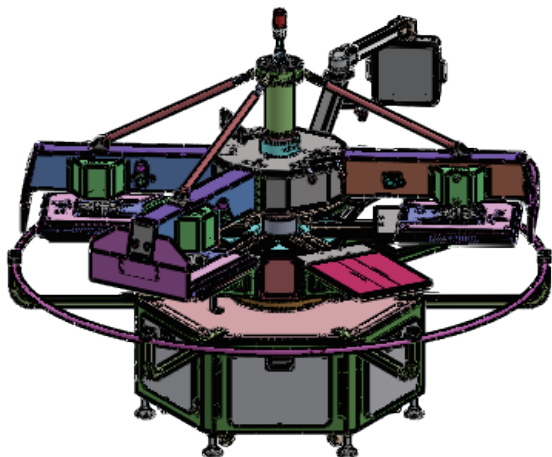
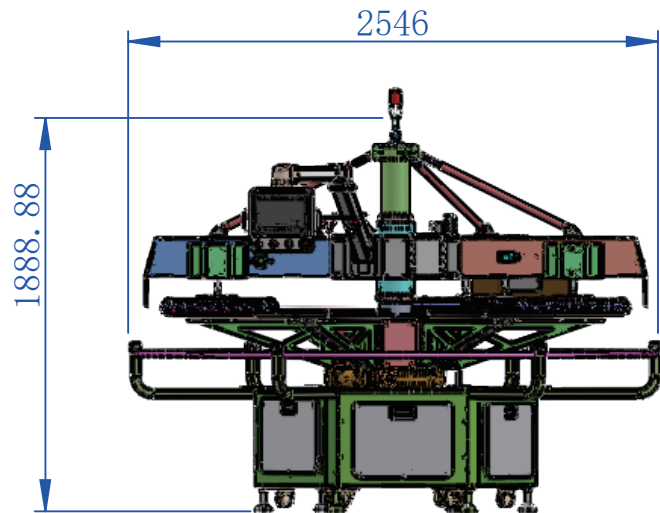
4. During automatic operation, if an emergency arises, immediately press the physical Emergency Stop button ("E-STOP") on the operation panel. Once the hazard is completely cleared and released, press the physical green "START" button to resume automatic operation.



5. To stop operation, press the red physical "STOP" button on the operation panel. The equipment will enter its automatic material clearing process, sequentially completing the pending cycles before coming to a stop.

2.7 Equipment external dimensions

(Refer to the technical drawings in your original document for specific measurements.)



Troubleshooting

Tap the **"INFO"** key on the touchscreen to pull up the "Fault Information Inquiry" screen. View the active alarm messages and clear the malfunctions according to the prompts.

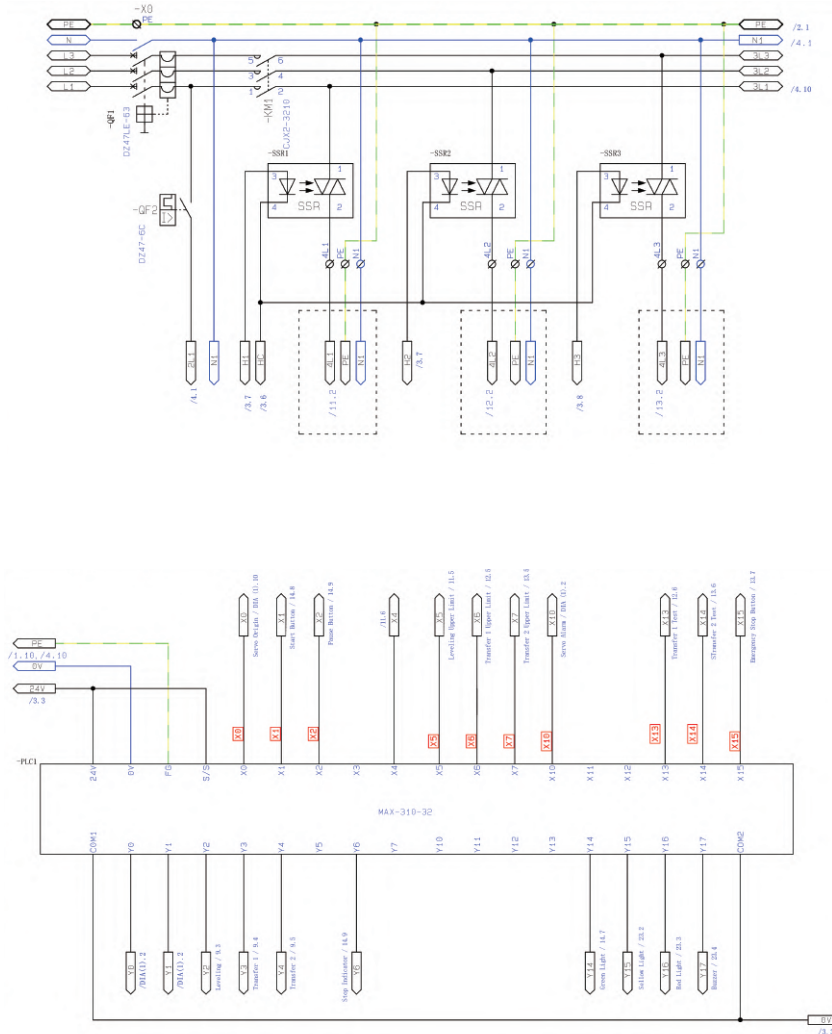
Fault information inquiry

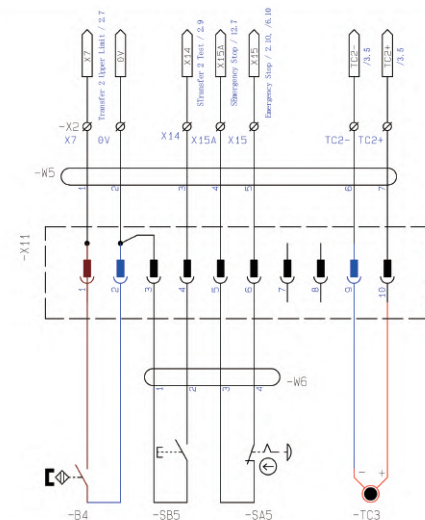
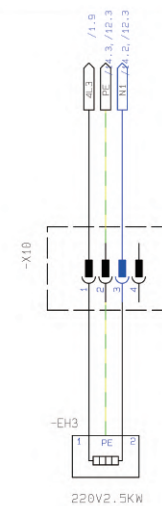
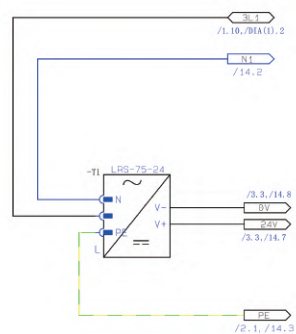
4	25/04/17	16:31:22	Pleaseperform the homing operation again
3	25/04/17	16:30:11	Pleaseperform the homing operation again
2	25/04/17	16:28:48	Pleaseperform the homing operation again
3	25/04/17	16:27:01	Pleaseperform the homing operation again

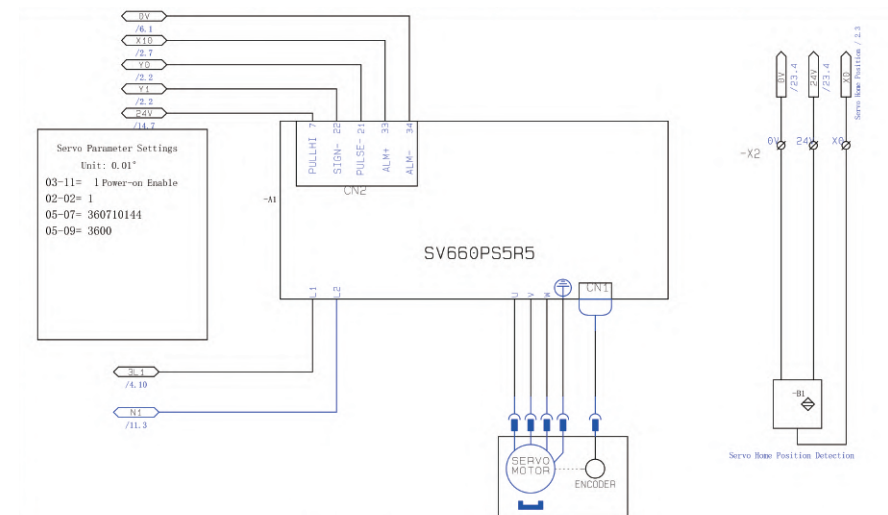
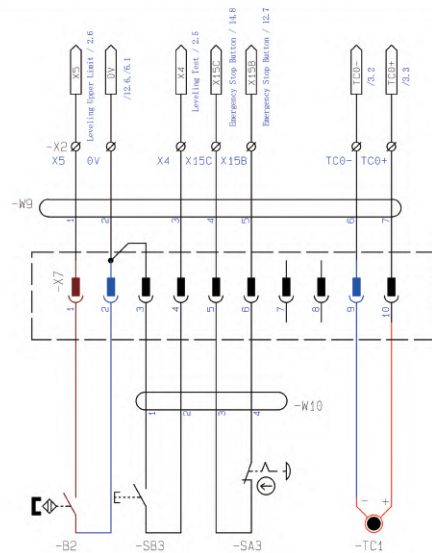
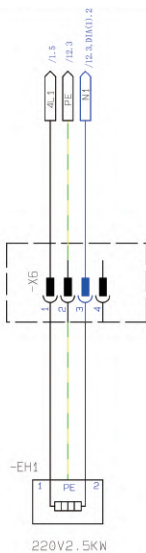
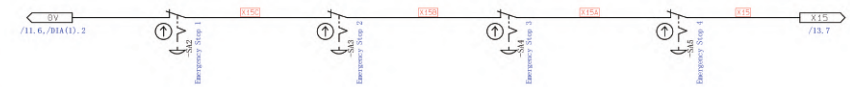
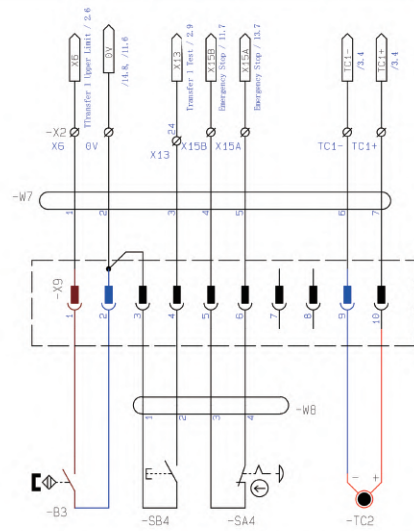
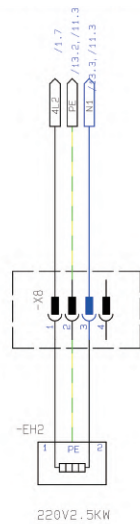
ESC

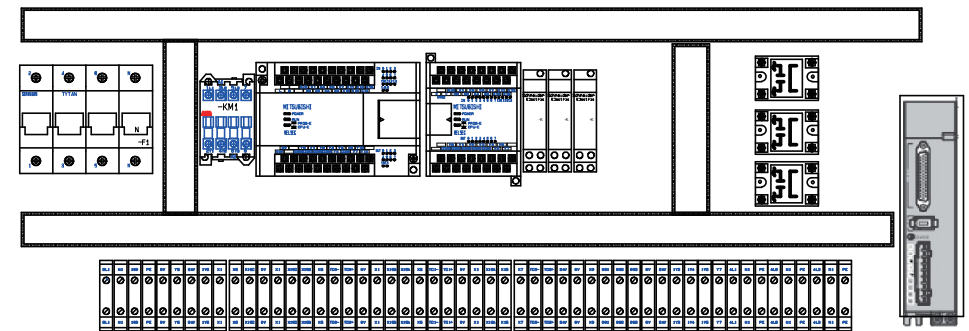
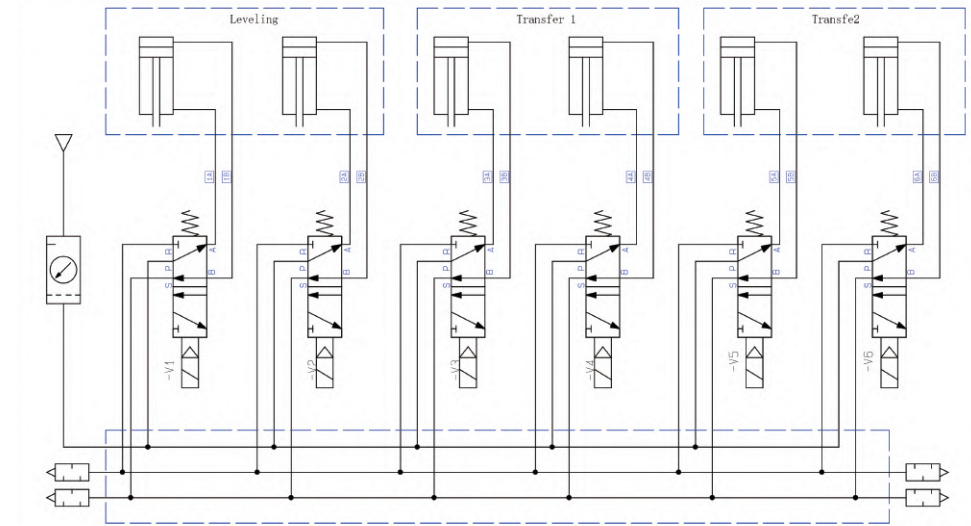
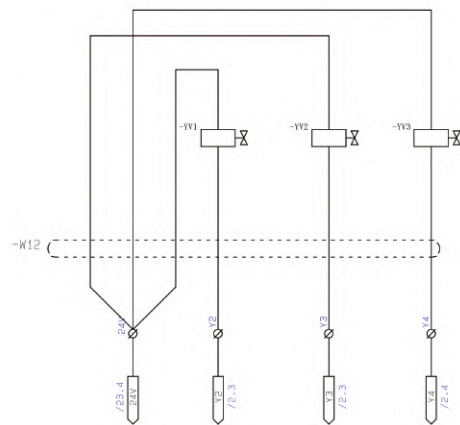
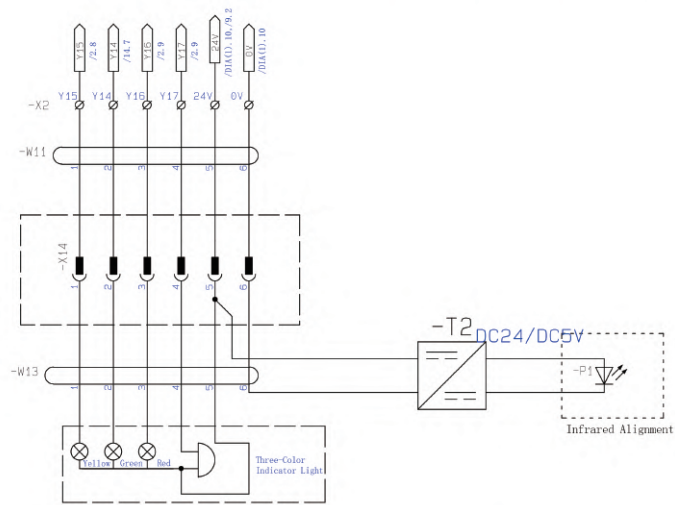
Circuit Diagram

(Refer to your original document for the diagram layout.)









Pneumatic Diagram

(Refer to your original document for the diagram layout.)

