



APEX

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Model: X8
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X8 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 Temperature:** 0–50°C (32–122°F)
- **Storage Relative Humidity:** 80% or less (non-condensing)
- **Operating Temperature:** 0–40°C (32–104°F)
- **Operating Relative Humidity:** 80% or less (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

1.4-1 Power Supply Requirements:

This equipment utilizes a 3-phase 380V+N ±15% / 50–60Hz power supply method, with a power consumption of approximately 8500W.

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:

Workstation Count	8
Platen Size	15.7" x 19.7"
Production Capacity	Up To 385 Units/hour*
Temperature Range	0-450°F
Time Range	0-999 Seconds
Shipping Size	122.5" x 84.6" x 88.6"
Air Requirements (CFM)	40 CFM
Power Consumption	8500W
Voltage	220V 3 Phase
Amps	23A
Machine Dimensions	120" x 120" x 75"
Method of Operation	Fully Automatic (Pneumatic
Machine Line	Apex
Shipping Weight	3334 lb
Net Weight	2409 lb
Color	Gray and White

Appearance and Functions

2.1 Exterior View

(Please refer to the images in your original document for labels 1 through 16.)



1. Power Switch
- 2 & 8. Emergency Stop Switch (E-STOP)
3. PLC Control Panel
4. Operation Status Indicator Light
- 5 & 6. Infrared Laser Positioning Device
7. Pressure Regulator and Pressure Gauge
- 9 & 10 & 11. Heating Platen
12. Cooling Platen
13. Cooling Platen Water Chiller
14. Safety Guardrail
15. Power Input Cable
16. Air Supply Input Line

2.2 10" PLC Touchscreen Controller

Independent Time & Temperature Control for 3 Heating Platens

Counter

Manual/ Auto Mode Switching

Digital °F/°C Temperature Switch



2.3 Startup Preparation

1. Verify that the equipment is connected to a power supply that meets the requirements.
2. Verify that a dry air supply is connected.
3. Turn on the main power switch to power up the equipment.



1. Standalone Unit



2. Inline setup with automatic film feeding and automatic film peeling/unloading equipment (This function is optional and must be purchased separately!).

2.4 Parameter Settings



Temperature Monitoring Zone

1. Temperature Unit Conversion Settings: Tap the [°C] key on the screen to cycle and switch directly between Celsius and Fahrenheit.



2. Heat Transfer Recipe Settings:

- A. Tap the recipe memory key on the screen to select the recipe group you wish to modify.
- B. Program the time and temperature for the flattening station, transfer station 1, and transfer station 2 in sequence. The settings will save automatically.



3. As shown in the figures: Tap the [SET] key to open the temperature and time setting pop-up window.

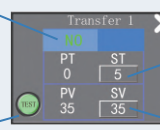
Enable Switch

Close Window

Time Setting

Temperature Setting

Cylinder Down-Stroke Test



4. Press and hold this [Count] area to reset the counter to zero.

2.5 Manual Operation



1. Tap the [AUTO] key on the screen to enter manual mode. The [TEST] button for the corresponding station will appear (the TEST key on the physical station panel functions identically). Tap it to execute manual movements. Touch and hold the center [M] icon for 2 seconds to index the turntable to the next station; repeat for cyclic operation.

2. In manual mode, tap the [Homing] key to automatically return the turntable to its mechanical home position.

Note: If you only need to use the reverse rotation function (peripheral devices cannot be used once this function is enabled), stay in manual mode and tap the [Reversal off] key to turn on reverse rotation. Then select automatic mode; once started, the machine will automatically rotate in reverse for the transfer process.

2.6 Automatic Operation



1. Verify that the screen mode button displays [**AUTO**].



2. If all stations are empty, tap the [**Reset**] key on the touchscreen prior to starting automatic operation. A pop-up window will appear; tap [**YES**] to confirm and clear the cached workpiece data.



3. Press the green [**START**] button on the control panel. A pop-up window will appear. After ensuring conditions are safe, tap [**YES**] to begin automatic operation; otherwise, tap [**NO**] to exit.



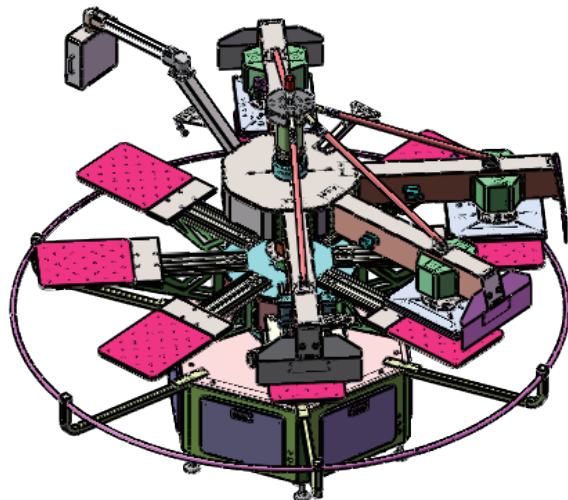
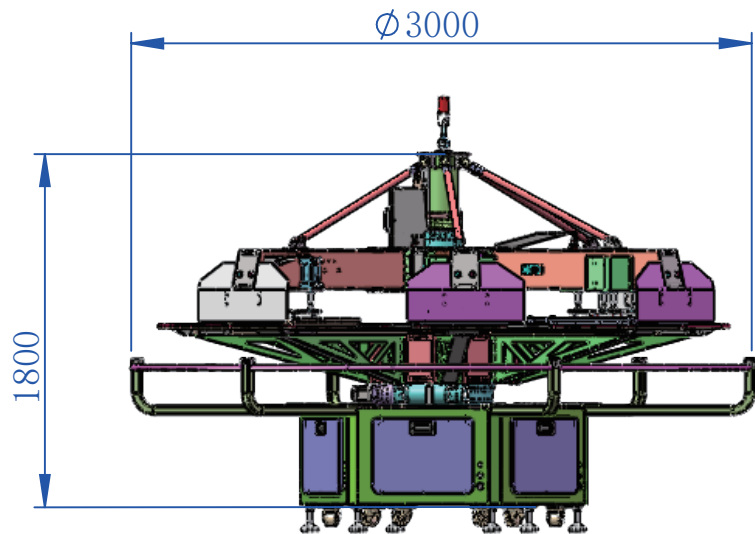
4. If an emergency occurs during automatic operation, immediately press the red emergency stop button [**ESTOP**] on the control panel. Once the fault is cleared, press the [**START**] button on the control



5. Automatic Stop: Press the red [**STOP**] button on the control panel. The equipment will enter its automatic material-clearing sequence and safely come to a stop step-by-step.

2.7 Equipment external dimensions

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



Circuit Diagram

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

