



**TC-TOYODA-24**

**Toyoda Tunnel Powder Applicator and Dryer (24")**

# **Maintenance Manual**



## **TABLE OF CONTENTS**

1. Notice of Safety .....	2
2. Installation Diagram .....	3
3. Equipment Operation Process .....	4-5
4. Film Winding Method .....	5
5. Equipment Maintenance .....	6

## 1.1. Notice of Safety - Safety Mark

Please read these operating instructions carefully so you can start production with your shaker without any problems. Reproduction of these operating instructions in any form requires the written approval of Toyoda Falcon. We reserve all rights to change technical data and product features. Toyoda Falcon does not assume any liability for direct or indirect damage resulting from use of this product.

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## 1.2. Specifications

Confirm that you have suitable power before installation of the machine.

- Rated Voltage: 220V
  - Rated Current: 23A
  - Rated Power: 5KW
  - Energy Consumption: 3.5KW-5KW
  - Net Weight: 496 lbs
  - Gross Weight: 660 lbs
  - Overall Dimensions: 77" (L) x 40" (W) x 45" (H)
  - Package Dimensions: 71" (L) x 44" (W) x 45" (H)
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## 1.3. Recommended Settings

- Preheat Temp: 65°C
- Heat Temp: 90°C
- Conveyor Speed: 2
- Powder: 5
- Shaking Speed: 5-7
- Suction: can be turned off once the film is attached to the media take-up rollers, then will need to be turned on when finished printing

To change settings, you will need to long press for 3 seconds then short press to confirm. There are powder holder guides, that are attached by magnet. The edge (appx 2-3mm.) should be gently resting on the film.

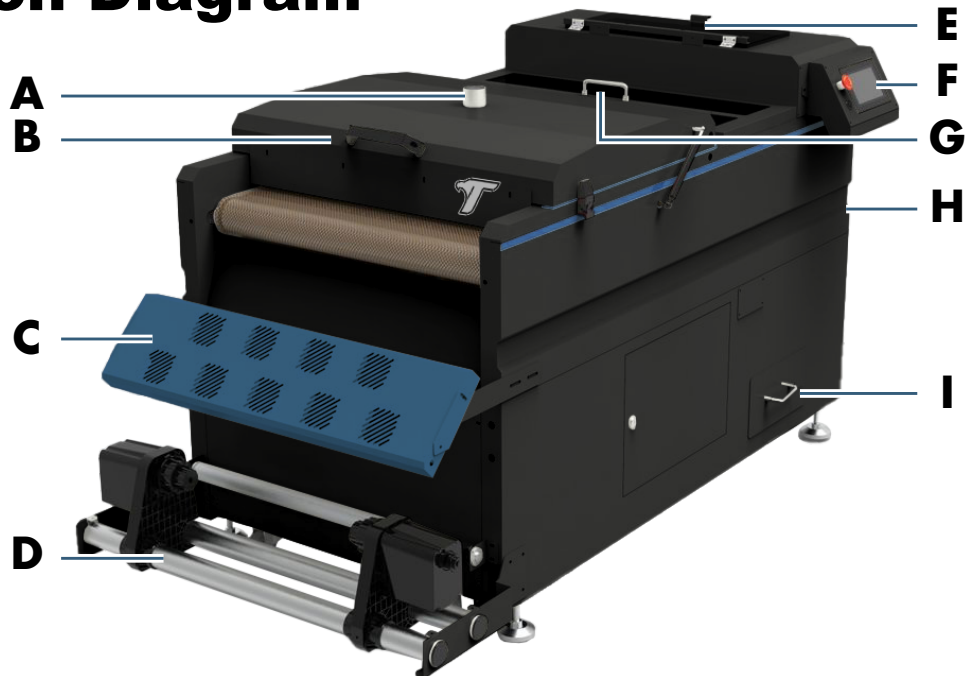
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## 1.4. Notice Before Starting

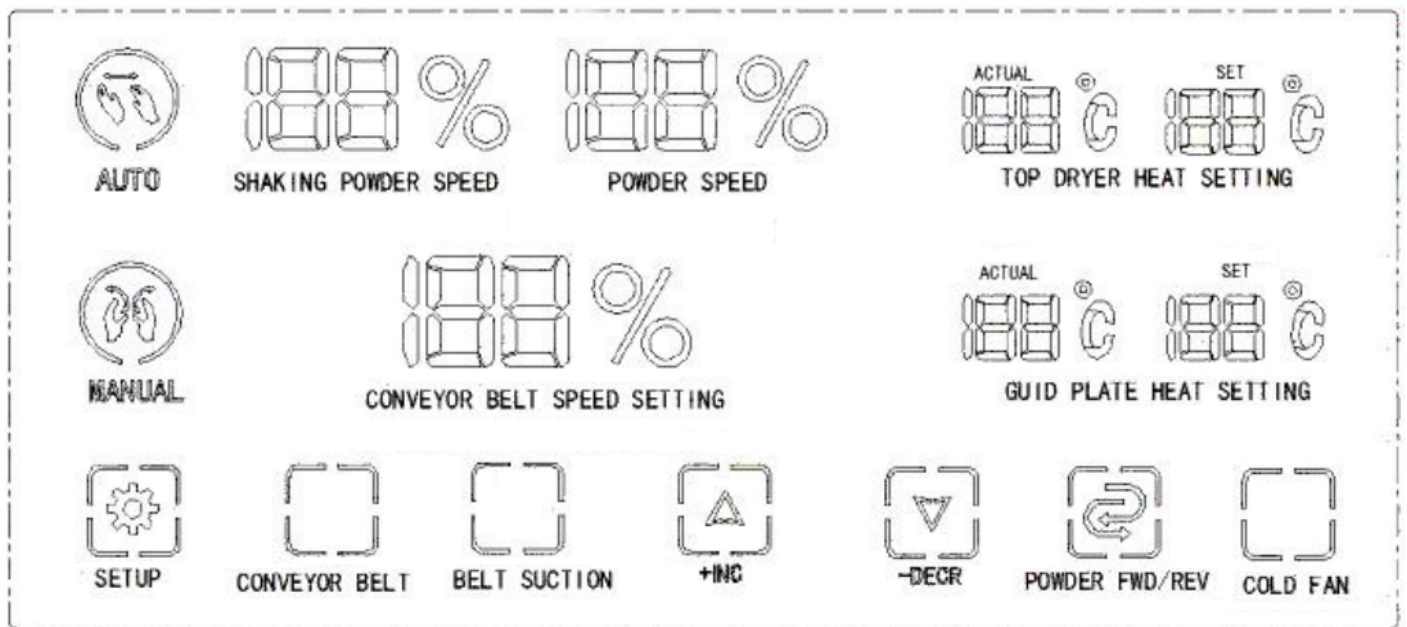
- Complete proper grounding before starting machine to avoid injury.
- Power supply must match specifications
- Check whether the line connection is proper
- For those who are sensitive to static electricity, please pay attention to personal protective measures when operating the equipment

## 2.1. Installation Diagram

- A.** Smoke vent
- B.** Top dryer
- C.** Cold fans
- D.** Film take up system
- E.** Powder
- F.** LCD Touch screen control
- G.** Guide belt
- H.** Front guide plate
- I.** Powder collect box



## 2.2. Touch Screen Diagram



### 3. Equipment Operation Process

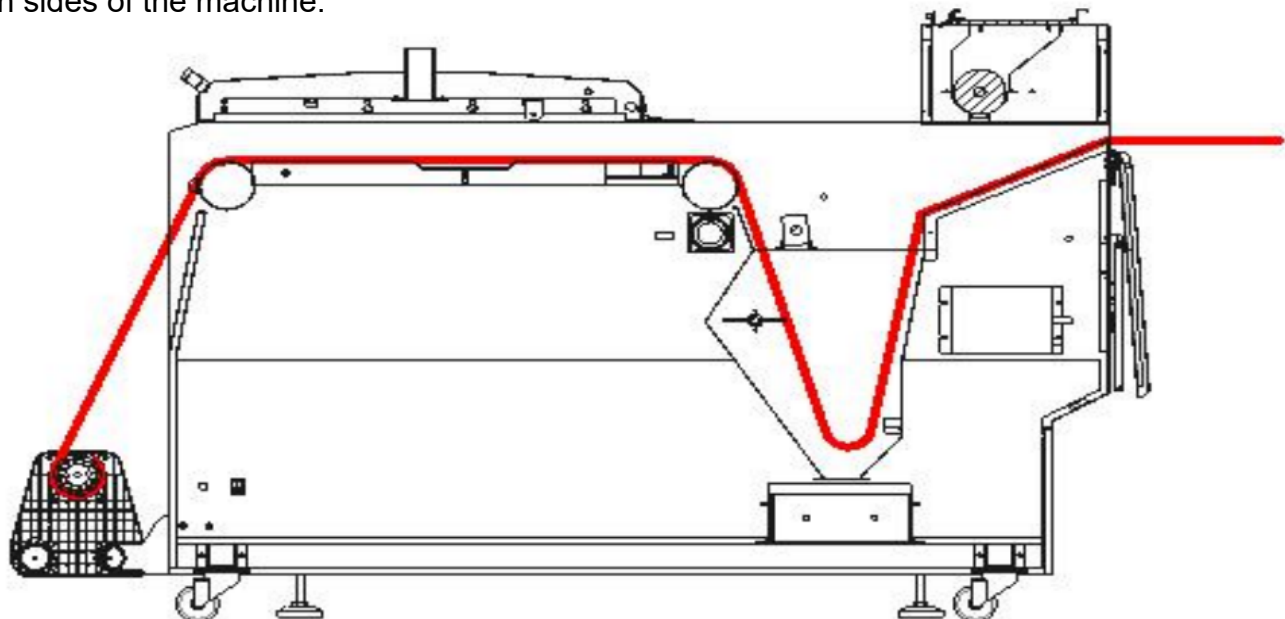
- 1 • Confirm that the external power supply of the equipment is connected (AC220v50 / 60Hz).
- 2 • Confirm that the grounding wire should be firmly grounded.
- 3 • Align the printer with the powder shaker before use (to reduce the problem of material deviation during receiving)
- 4 • Fix the material on the feeder and put it into the printer for printing. See "winding method" for specific operation.
- 5 • Turn on the "main power switch" of the lower right control box.
- 6 • Function setting: You can set the function by clicking on the screen. When you click the shaking speed, the shaking speed will flash, and then set the shaking speed by "plus" and "minus". Click the dusting speed on the screen, the speed of the guide belt, the heating setting of the upper drying, the heating setting of the front guide plate and other speed and temperature settings. After setting, click again to make the current setting not flashing to complete the setting.
- 7 • Setting for turning off and turning on the powder shaking function: Long press and hold the "Powder shaking speed value" to turn off or on the powder shaking speed. When "--" is displayed, it is in the function off state, and then long press and hold "--" for 3 seconds to turn on the powder shaking function.
- 8 • Setting for closing and opening the dusting function: click the second key "POWDER" in the lower right corner to select forward, reverse and close.
- 9 • Setting for closing and opening the guide belt function: press the second key "CONVEYOR BELT" in the lower left corner to select forward, backward and close.
- 10 • Turn off and on settings for the upper drying and heating function: Press and hold the "Set Temperature Value" button in the upper drying and heating settings for 3 seconds to turn off or on the heating. When "--" is displayed, it is in the function off state, and then press and hold "--" for 3 seconds to turn on the heating function.
- 11 • Front guide heating function off and on settings: Press and hold the "Set temperature value" button in the front guide settings for 3 seconds to turn off or on heating. When "--" is displayed, it is in the function off state, and then press and hold "--" for 3 seconds to turn on the heating function.
- 12 • Cooling fan function off and on setting: click the "COOLER" key in the lower right corner to select on or off. Setting for closing and opening the suction function: Press the third button in the bottom left corner to select "suction" for front suction, rear suction, and closing suction.
- 13 • After adjusting the above functions, powder shaking and color fixing can be carried out.

- 14 • Upper drying temperature setting: 100 -- 160 (the specific temperature is set according to the melting point of the powder)
  - 15 • The temperature of the front guide heating plate is set to about 60 - 80 , Spreading speed 5 gears.
  - 16 • Timing powder spreading function, which needs to enter automatic mode. When setting the first gear, the powder will work for 1 minute and 30 seconds before stopping. After stopping for 15 minutes, it will work for 1 minute and 30 seconds before stopping for 15 minutes. This cycle will result in a stop time of 15 minutes, a powder spreading time of 3 minutes for the second gear, a powder spreading time of 4 minutes and 30 seconds for the third gear, and so on. From the fourth gear to the tenth gear, an additional powder spreading time of 1 minute and 30 seconds will be added for each gear. If there is not enough powder in use, the powder spreading time can be directly adjusted, After adjustment, time can be directly adjusted, After adjustment, time can be directly adjusted, After time can be directly adjusted, the powder spraying must be turned off and then on. After reopening, the powder should be sprayed according to the new spraying time.
  - 17 • Turn off all "heating switches" after film fixation
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## 4. Film Winding Method

Lead the media into powder box through the outside powder bar. Cross the space between the upper dryer and platform dryer. Wind the media to the paper tube of the take up winder and the winding operation is complete.

Attention: make sure that the film is smooth with no folds. Also that the edge of the film is even on both sides of the machine.



## 5. Equipment Maintenance

1. Disconnect the external power supply when repairing or cleaning the machine.
2. Clean the residual powder on the wall of the powder shaking chamber after finishing the goods every day.
3. Clean the powder shaking film.
4. Clean the remaining powder off the panel.
5. Clean the powder on the positioning shaft.
6. The control box shall be cleaned regularly to keep dry.
7. Check the powder box at the end of each day. The powder box should be cleaned to prevent moisture from getting into the powder. If this happens, it can result in the motor getting stuck or burning. When the powder is blocked, the powder hairbrush can be disassembled and cleaned.
8. When the powder shaker is in use, the upper cover of the powder shaking cavity is closed to prevent the powder from flying into the guide belt when adding powder.
9. When adding powder, try to prevent the powder from flying onto the guide belt and entering the air suction platform. The guide belt and the suction platform remain on the platform after the powder enters and are bonded with the guide belt. After cooling, the guide belt will stick to the suction platform, causing the motor to burn out or the guide belt to deform.