



TC-TOYODA-24L

Toyoda Tunnel Powder Applicator and Dryer (24")

Manual

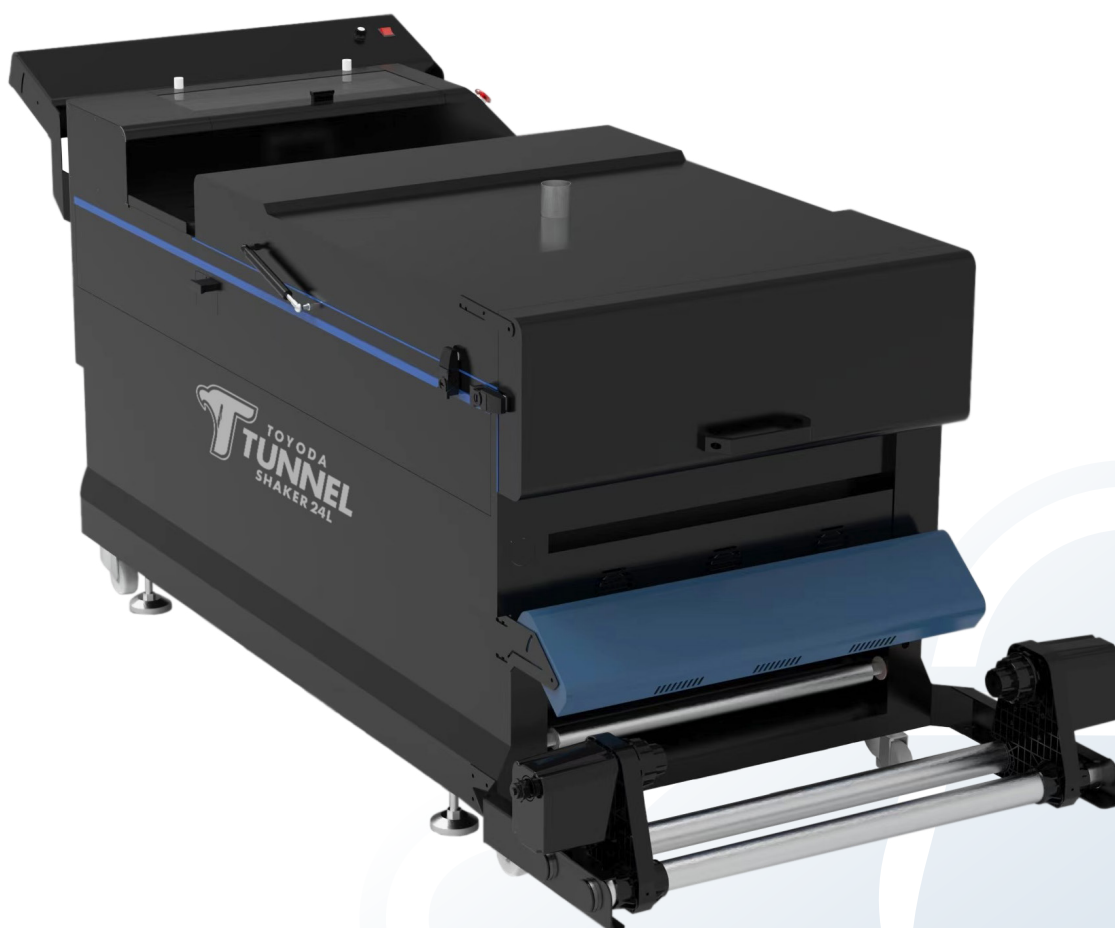


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1.1. Notice of Safety - Safety Mark

Please carefully review these operating instructions before starting production with your shaker to ensure smooth operation. Reproduction of these instructions in any form requires written approval from Toyoda Falcon. We reserve the right to modify technical data and product features.

Toyoda Falcon disclaims any liability for direct or indirect damages resulting from the use of this product.

1.2. Specifications

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

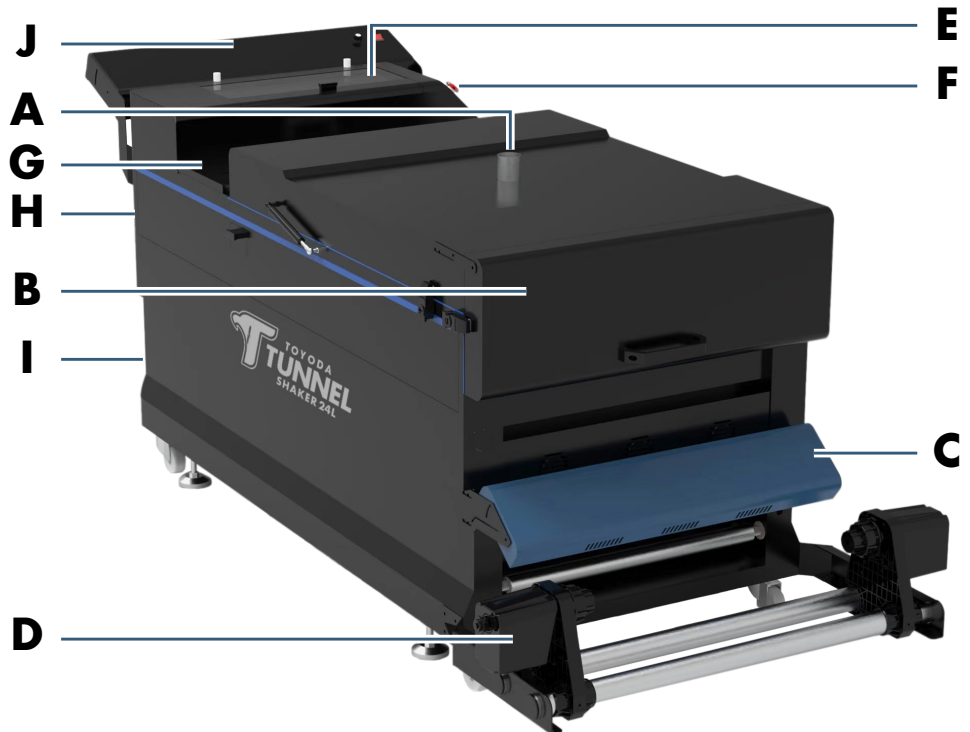
- Rated Voltage: 220V
 - Rated Current: 30A
 - Rated Power: 6.5KW
 - Energy Consumption: 3KW-6.5KW
 - Net Weight: 485 lbs
 - Gross Weight: 639 lbs
 - Overall Dimensions: 94" (L) x 36" (W) x 39" (H)
 - Package Dimensions: 77" (L) x 44" (W) x 44" (H)
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1.3. Notice Before Starting

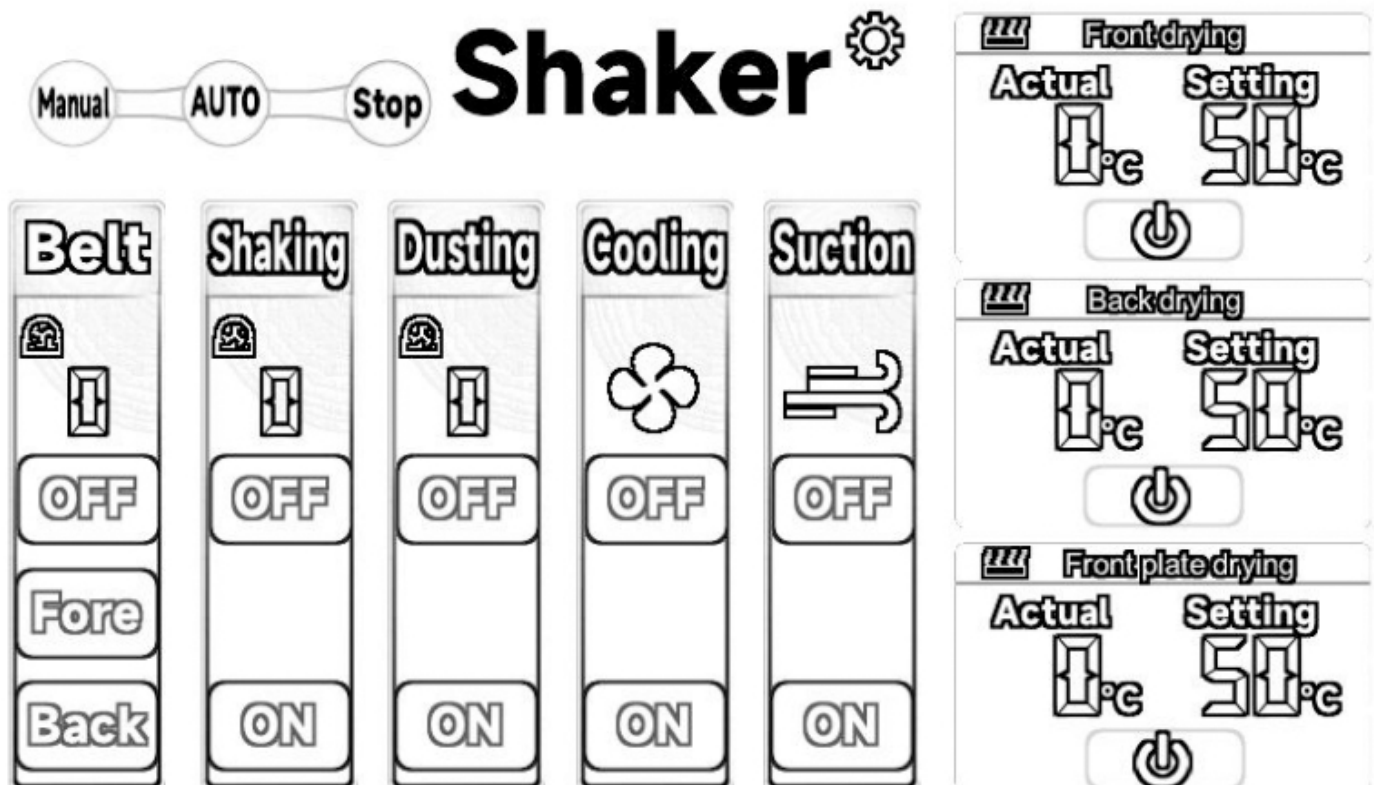
- Ensure proper grounding before starting the machine to prevent injury.
- Verify that the power supply matches the specifications.
- Check the integrity of the line connection.
- For individuals sensitive to static electricity, please observe personal protective measures when operating the equipment.

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
(on other side of diagram)
- G.** Guide belt
- H.** Front guide plate
- I.** Powder collect box
(on other side of diagram)
- J.** Front dryer



2.2. Touch Screen Diagram



3. Equipment Operation Process

1. Confirm that the equipment's external power supply is connected (AC220V 50/60Hz).
2. Ensure that the grounding wire is firmly grounded.
3. Align the printer with the powder shaker before use to minimize material deviation during processing.
4. Secure the material on the feeder and load it into the printer for printing. Refer to the "winding method" for detailed instructions.
5. Turn on the "main power switch" located on the lower right control box.
6. Function setting: Click on the screen to set various functions. When you click on the "shaking powder speed value," a value input interface will appear. Enter the desired speed value and confirm to return to the main interface. Other settings to configure include: powder spreading speed, guide belt speed, upper drying temperature, and front guide plate heating settings.
7. To turn the powder shaking function on or off, tap the "shake powder" option on the screen under "off" or "on."
8. To turn the powder spreading function on or off, tap the "Powder spreading" option on the screen under "off" or "on."
9. To control the belt guide function, tap "off" or "back" under the screen's belt guide section to switch between off and in/out modes.
10. To control the front drying and heating function, tap the "power symbol" key. When the "power symbol" is red, it indicates the heating is off. Tap it to turn it green and activate the heating. The back drying setting operates the same way.
11. To control the front panel heating function, tap the "power symbol" key. When the "power symbol" is red, it indicates the heating is off. Tap it to turn it green and activate the heating.
12. To control the cooling fan function, tap "cooling fan" under "off" or "on" on the screen to toggle the function.
13. To control the belt suction function, tap "belt suction" under "off" or "on" on the screen to toggle the function.
14. When the "manual" function is enabled from the upper left corner of the screen, the powder shaking machine will operate according to the set parameters, unaffected by the sensor. If there is no film, the guide belt will stop immediately, and the powder and shaking functions will stop after 10 seconds. When film is present, the powder shaking machine will function normally. Activating the "stop" function will halt the powder spreading, powder shaking, and guide belt, while other functions will continue to operate normally. Switching to "auto" will restore the automatic working state, and switching to "manual" will restore the manual working state.

15. Long press the gear symbol in the upper right corner to access screen calibration, time settings, and more.
16. The automatic insulation function effectively prevents the film from remaining inside the machine. This function does not require any settings. When the machine is turned on in automatic mode, it activates automatically. If the printer stops working for 20 seconds, the insulation function will automatically activate and maintain the temperature at 20 degrees below the current set value. For example, if the current temperature is 100 degrees, it will maintain at 80 degrees after 20 seconds of inactivity. When the printer is restarted, the temperature will return to the set value automatically. This function is not available in manual mode.
17. The timed powder spreading function operates in automatic mode. In the first setting, the powder spreader will work for 1 minute, then stop for 15 minutes, and continue this cycle with a 15-minute stop time. In the second setting, the powder spreader will work for 2 minutes, and in the third setting, it will work for 3 minutes, and so on. If the powder amount is insufficient during use, the powder spreading time can be directly adjusted. To apply the new duration, turn off the powder spreader and then turn it on again.
18. Suggested Settings:
 - Guide belt speed: 30
 - Powder shaking speed: 15-30
 - Powder spreading speed: 7-10
 - Upper drying temperature: 110-160°C
 - Rear drying temperature: 110-160°C
 - Front guide plate temperature: 60-90°C

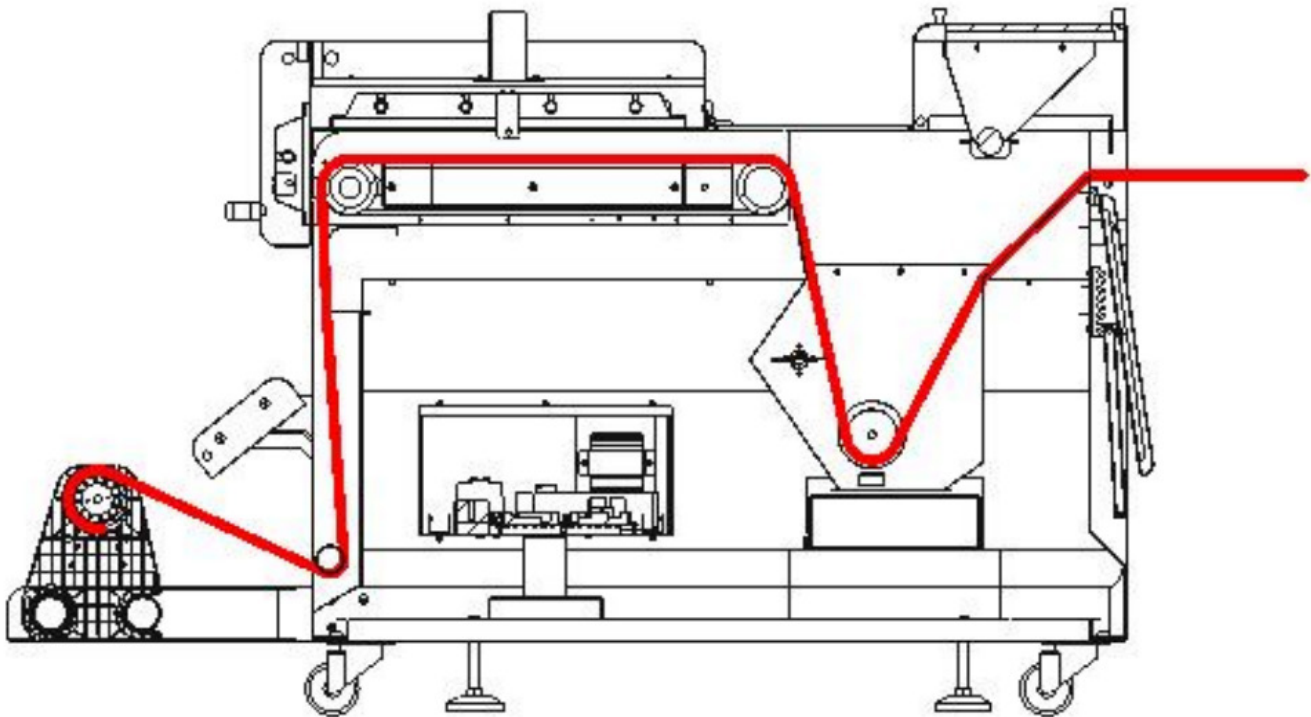
These values are for reference only (specific temperatures should be set according to the powder's melting point). Adjustments can be made based on the actual material being used.
19. After adjusting the above settings, you can proceed with powder shaking and color fixing.
20. After completing the material fixation, turn off all the "heating switches."

4. Film Winding Method

Guide the material to be solidified to the bottom of the powder box, then move it to the shaking powder bar above and between the platform for color fixing. Finally, roll the solidified material into the receptacle barrel or use the guide belt and suction to bring out the print screen for printing and cutting.



Note: Ensure the solid color material is flat and wrinkle-free, and that the edges of the material are aligned at the front and back of the machine.



5. Equipment Maintenance

1. Disconnect the machine from the external power supply before maintenance or cleaning.
2. Clean the remaining powder from the walls of the shaking powder cavity daily after use.
3. Clean the shaking powder film.
4. Clean the remaining powder on the panel.
5. Sweep the powder off the positioning axis.
6. Regularly clean the control electric box to keep it dry.
7. At the end of each day, clean the powder spreading box to prevent powder storage. This prevents moisture from affecting the powder, which could result in no powder being dispensed or motor burnout due to clogging. If the powder is blocked, disassemble and clean the powder hairbrush.
8. For glue powder that has been used twice, sieve it again using a 60-mesh sieve to remove impurities. This prevents blockage in the powder scattering hairbrush and ensures the picture quality and stamping firmness are not affected.
9. When using the shaking powder machine, keep the cover of the shaking powder cavity closed to prevent powder from flying into the guide belt and to reduce noise.
10. When adding powder, avoid large movements to prevent powder from flying onto the guide belt or suction platform. Powder on these surfaces can cause them to stick together after cooling, leading to motor burnout or deformation of the guide belt.