

CALCA PLUS 24in High Speed Automatic DTF Powder Shaker and Dryer

DTF-PSM-H6501-US

User Manual

Please read this manual carefully before operation



Thank you very much for choosing our CALCA brand series DTF powder shaker and dryer unit, please read the manual carefully, including the operation and maintenance to ensure the best output and the lifetime of the machine.

DTF opens the door to a wide range of choices and is capable of printing onto non-treated cotton, silk, polyester, denim, nylon, leather, 50/50 blends, and more. It works equally well on white and dark textiles.

Direct Transfer Printing is a revolutionary new printing technique that's more affordable and accessible compared to DTG, screen printing, sublimation or laser white toner transfers.

What sets DTF apart from other transfers?



- ✓ A great option for small orders.
- ✓ No cutting and weeding required.
- ✓ Crisp, defined edges and images from start to finish.
- ✓ Low cost on waste.
- ✓ Low investment - high reward (Print Cost: \$0.007/inch²).

Works on Most any Fabrics

DTG technology works best on cotton pre-treated fabrics while DTF opens the door to a wide range of choices and is capable of printing onto non-treated cotton, silk, polyester, denim, nylon, leather, 50/50 blends, and more. It works equally well on white and dark textiles.



CALCA DTF powder shaker and dryer unit can handle up to 24in wide DTF film.

This all in one unit takes over by evenly spreading, then melting the needed amount of adhesive material directly onto your printed image, saving time, effort, and cost.

Applicable Medium: Nylon, Chemical Fiber, Cotton, Leather, Swimsuit, Diving Suit, PVC, EVA, etc.

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I. Notice on safety using

1. General

Carefully read the instructions in this manual as they contain important information regarding proper, efficient and safe installation, use and maintenance of the unit.

The installation of this unit must be carried out in accordance with the manufacturer's instructions.

Switch off the unit in case of failure or malfunction and contact your distributor for service information.

2. Symbols that may be used in this manual



This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.



This symbol informs about the right way to perform in order to prevent bad results, appliance damages or hazardous situations.



This symbol informs about recommendations and hints that help to get the best performance out of the appliance.

3. Safety

3.1 Safe use of the appliance



For your safety. Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

3.2 Other prohibitions (dangerous procedures)



Using any parts other than genuine CALCA approved manufactured parts can void the warranty.



Improper installation, adjustment, alteration, service or maintenance can cause property damage or major injury. Read the installation and operating instructions thoroughly before installing or servicing this equipment.

3.3 Caution



CAUTION

Users must draw attention to content have this mark, if not damage or lost may be caused by improper operation.

4. Notice before starting it:

This machine have large power, high temperature, in order to use the machine better please know about the machine's following specification.

Equipment installation instructions

Installation and placement

- 1 This is high-power electrical heating equipment Should be placed in a dry and ventilated environment
- 2 The equipment must be placed horizontally

Power connection instructions

Electricity parameters

Rated voltage: AC110V / 220 V, 1 phase

Rated current: 72A / 36A

Rated power: 7900W

The access power must be consistent with the rated power of the equipment, and the diameter of the access power supply line must meet the rated requirements

Ground connection



Before getting the power-on, the ground wire must be connected properly to avoid accidents

Those who are sensitive to static electricity should take protective measures when operating the equipment

Those who are allergic to static electricity should wear an anti-static wristband or anti-static gloves.

II. Functional Description

1. Features and Data Sheet

CALCA PLUS 24in automatic DTF powder shaker and dryer with vacuum absorption conveying platform and touch screen display, suitable for 4 heads high speed DTF printers.

With a absorption conveying platform secures the printing material to avoid bulging, run-offs, adhesion and media waste.

Data Sheet:

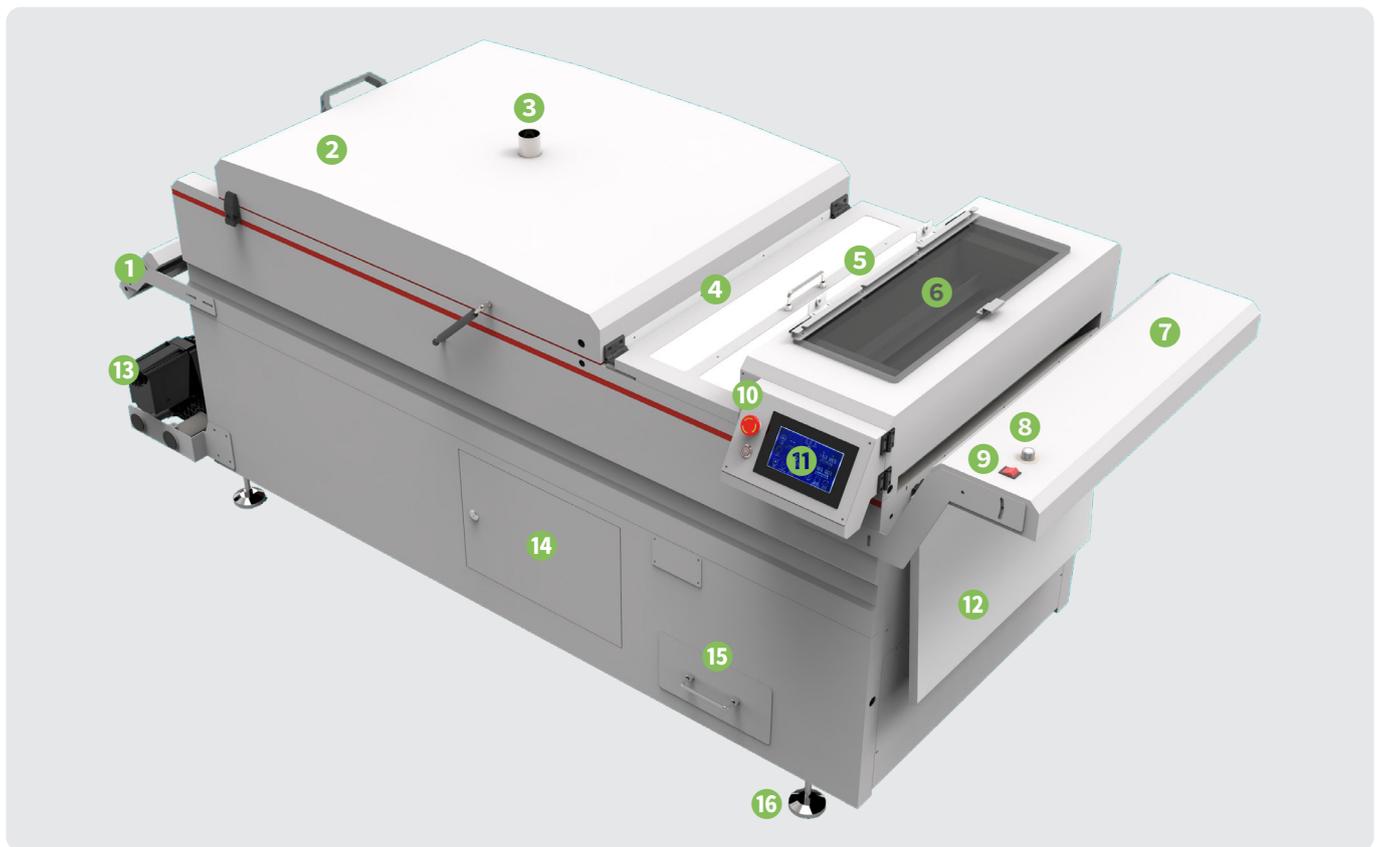
- CALCA Brand: USA registered
- Maximum Shake Powder Width: 600mm (23.6inches)
- Have both auto/manual interface
- Automatically sensor controlled
- Electrically heated, heated by 6pcs of quartz infrared tubes, which improves and protects color reproduction. (About 4000 hours lifetime)
- Touch screen electronically controlled, easy to operate.
- Rewinding Function: Automatic induction rewinding
- Heating and Drying Mode: Front guide plate heating, top drying curing
- Cooling Mode: 9 fun air cooling (2 raw)

Package:

- Machine Size: 101.9in x 39.5in x 42.6in (2589mm x 1002mm x 1081mm)
- Machine Weight: 595lbs (270kg)
- Packaging Size: 86.6in x 44.5in x 45.1in (2200mm x 1130mm x 1145mm)
- Gross Weight: 728lbs (330kg)

2. Component and Installation

2.1 Parts Name and Functions



- ① **Cooling fan:** To cool the media after drying
- ② **Top dryer:** Dry the media after dusting
- ③ **Smoke outlet:** Discharge the air mixed with powder
- ④ **Conveying belt in:** Transfer the film media
- ⑤ **Shaking powder**
- ⑥ **Dusting powder:** Store powder and dusting powder
- ⑦ **Top heater**
- ⑧ **Knob switch for temperature control of ⑦**
- ⑨ **Power switch of top heater ⑦**
- ⑩ **Emergency stop switch**
- ⑪ **Touch screen display**
- ⑫ **Front guide plate heater:** Preheating the printed media
- ⑬ **Automatic take-up system:** Tighten the cooled media into rolls
- ⑭ **Power box**
- ⑮ **Powder recycling drawer (Powder tray):** Collect the scattered shaken powder
- ⑯ **Leveler:** Fix the equipment

2.2 Print linkage engages the front sensor, front vacuum cylinder and shaking device in automatic mode.

Remarks:

The integrated version powder shaker has some new functions.

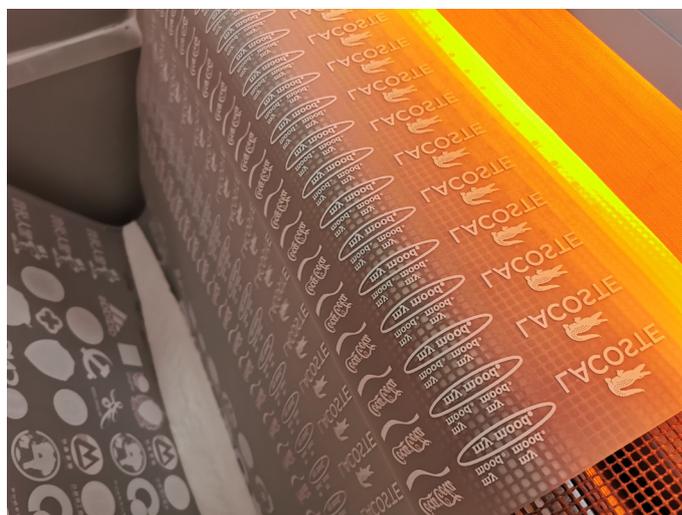
1) Powder shaking delay, it means after the film end part passing the sensor, it will shake 10 more seconds, cause there's still part of powder treated film hanging down needs to shake a bit.

2) Powder dusting delay, it means after the printing finished, it will dusting 10 more seconds, cause the film rear part hasn't passing through the dusting part yet.

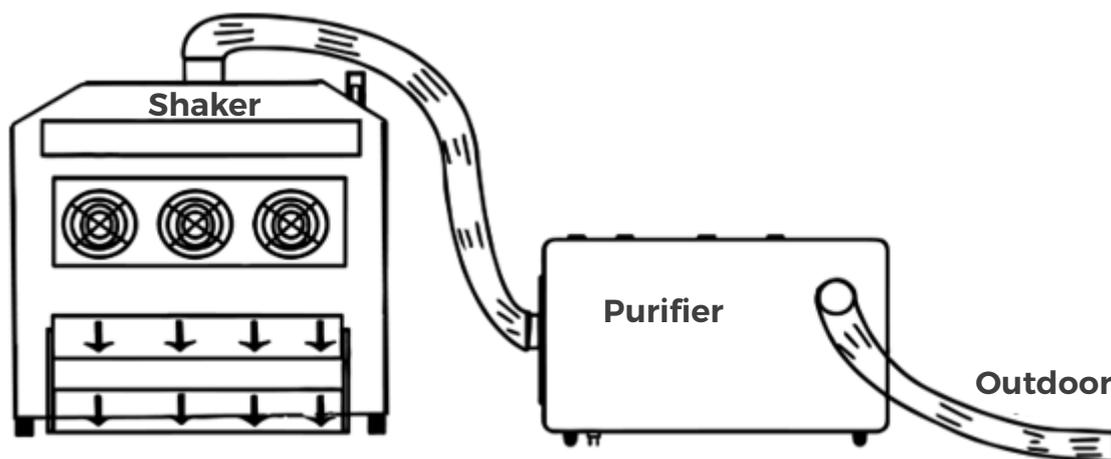
Powder Control Stand w/ a film sensor.



Film sensor



2.3 Connection of The Smoke Outlet



III. Equipment Operation

1. Touch Screen Display Controller



1.1 Before you begin to use your new shaker dryer you must understand the differences between an automatic shaker and a dialed manual one. You will produce better results if you understand the technology and follow the “rules”.

In the manual state, with or without film loading on, the machine’s powder shaking, dusting and the conveyor belt all can work properly.

In the automatic state, the paper is fed by induction, when the film reaches the position, the machine’s powder shaking, dusting and the conveyor belt will be triggered to work.

1.2 Confirm that the external power supply of the equipment is connected with AC110V, 50 / 60Hz.

1.3 Confirm that the grounding wire should be firmly grounded.

1.4 Align the printer with the powder shaker before use (In order to avoid the

material deviation during receiving).

1.5 Fix the material on the feeder and put it into the printer for printing. See “winding method” for specific operation.

1.6 Turn on the “main power switch” of the lower right control box.

1.7 Function setting: Press the “SETUP:” key to select the function. When the powder shaking speed is selected, the powder shaking speed will flash, and then set the powder shaking speed through “UP” and “DOWN”. After the powder shaking speed is set, press the “setup” key to set the powder spreading speed, belt guide speed and upper drying heating, The heating setting of the front guide plate is equal to the setting of speed and temperature.

1.8 Setting for turning off/on the powder shaking function: long press the “SETUP” key to turn off or turn on the “SHAKER SPEED”. When “one by one” is displayed, it is turned off, and then long press the “setup” key to turn it on.

1.9 Setting for turning off/on the dusting function: click the second key “POWDER FWD/REV” in the lower right corner to select forward, reverse and close.

1.10 Setting for turning off/on the guide belt function: press the second key “CONVEYOR BELT” in the lower left corner to select forward, backward and close.

1.11 On / Off setting of top drying heating function: long press the “^UP” key to turn off or on heating. When “one by one” is displayed, it is in the closed state, and then long press “^UP” to turn on the heating.

1.12 Setting for turning off/on the heating function of the front guide plate: long press the “VDOWN” key to turn off or turn on the heating. When “one by one” is displayed, it is in the closed state, and then long press “ VDOWN” to turn on the heating.

1.13 Cooling fan function off and on setting: click the “COOLER” key in the lower right corner to select on or off.

After adjusting the above functions, powder shaking and color fixing can be carried out.

1.14 Top drying temperature setting: 100°C - 170°C (212°F - 338°F) (the specific

complete the printing process.

2.5 Recycling the hot melt powder is accomplished simply by brushing the powder from the interior walls into the recycled powder tray and refill it into the powder box.

IV. Equipment Maintenance

4.1. Disconnect the external power supply when repairing or cleaning the machine.

4.2. Clean the residual powder shaking film.

4.3. Clean the residual powder of the panel.

4.4. Clean the residual powder on the positioning shaft.

4.5. Clean the control box regularly, keep it dry.

4.6. Keep powder box free from debris that mixes in with TPU powders. Brush unwanted material from powder box area daily and remove unwanted debris from recycle bin before reuse into powder box.

4.7. Don't leave the powder on the dusting box overnight to prevent the powder from getting dampened, causing blockage of the dusting powder channel.

4.8. It needs to be filtered with a 60-mesh sieve before using the recycled powder.

4.9. Cover the hood of the powder box when the powder shaker is working to prevent the powder from flying out, affecting the printing environment and reducing noise.

4.10. Add the powder slightly in order to prevent the powder from flying onto the guide belt and entering the air suction platform. Otherwise it will cause the motor to burn out or the guide belt to deform.

4.11. With the vented oven lid in the open position and the unit unplugged, fix the lid in place using the securing arm. Then using a dry paper towel remove any oily residue from surfaces inside the heating chamber every week.

4.12. Always remove any unwanted material from the recycled powder tray upon inspection. TPU powder should be completely white and sediment-free.

V. Troubleshooting

5.1 Cocked media scratches the print head.

- a. Check if the height of the support frame is lower than the printing platform.
- b. Check if the media is laid flat.

5.2 Powder is not sprinkling to the dusting box

- a. Check whether the dusting switch is turned on
- b. Check whether the dusting shaft rotates
- c. Check whether the dusting speed is suitable

5.3 Granular powder remains on the surface of the media

- a. Check whether the powder shaking speed is too slow and the excess powder is not shaken off.
- b. Check whether there is granular powder on the surface of the dryer
- c. Check the printing materials, powder is easy to stick to the materials that are NOT treated with electrostatic adsorption.

5.4 Powder treated media surface is still sticky

- a. Check whether the temperature and time of the dryer are suitable, and whether it is not completely dried.
- b. Check whether the cooling fan is working properly to cool down the media.
- c. Check whether the delivery system is normal, and whether the speed is too fast and the media is not dried and cooled completely.
- d. Whether there is a problem with the ink absorption of the media

5.5 Temperature is not adjustable with the power on

Check whether the temperature sensor probe is normal, you can choose to exchange the positions of the two temperature control probes to check whether the temperature returns to normal.

5.6 Damage caused to the coupling during shipping

Just replace it with the spare coupling.

WARRANTY CARD

MODEL		LOT #	
BUYER		DATE	
SELLER		TEL	

Notes

- i. The warranty card should be filled by seller and kept by buyer. Alterations are prohibited.
- ii. 24 Month Warranty - CALCA DTF shaker includes a 24 month warranty, consumable parts are excluded from the warranty.
- iii. No free repair is available for any damages caused by the improper use.