CALCA®

ADVANCED PRINTING SYSTEM

CE

CALCA 14.5in (370mm) High Speed Automatic TPU Adhesive Powder Shaker and Dryer Unit

DTF-PSM-A400L

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.

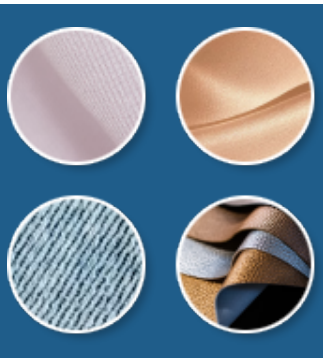
Direct Transfer Printing is a revolutionary new printing technique that's more affordable and accessible compared to DTG, screen printing, sublimation or laser white toner transfers.

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/inch^2).

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.
With the advancement in DTF technology, there is no denying that DTF is taking the printing industry by storm. It is quickly becoming one of the most popular technologies for textile printing compared to traditional printing methods.
This all in one DTF powder shaker 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.

CONTENT

I. Notice On Safety Using

1. General

Read the instructions carefully 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 equipment.

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

Users must pay attention to content have this mark, it might be caused by misoperation.

4. Notice Before Starting It:

This machine is a high voltage equipment, in order to use the machine better please be aware of following specification.

Equipment installation instructions

Installation and placement

1. The 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, 1 phase

Rated current: 16.4A

Rated power: 1800W

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 DTF powder shaker and dryer unit can handle up to 14.5in wide DTF film. With a warming inlet platform, automatic powder dispenser, paddle to remove excess powder, 4 bulb tunnel dryer and roll up at the end.

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

Data Sheet:

- **CALCA Brand:** USA registered
- **Maximum Shake Powder Width:** 370mm (14.5inches)
- **Functions:** Shake powder control, dusting control, PID setting of curing temperature
- **Heating and Drying Function:** Quartz infrared heat drying tube
- **Rewinding Function:** Automatic induction rewinding
- **Heating Mode:** Upper drying heating

Package:

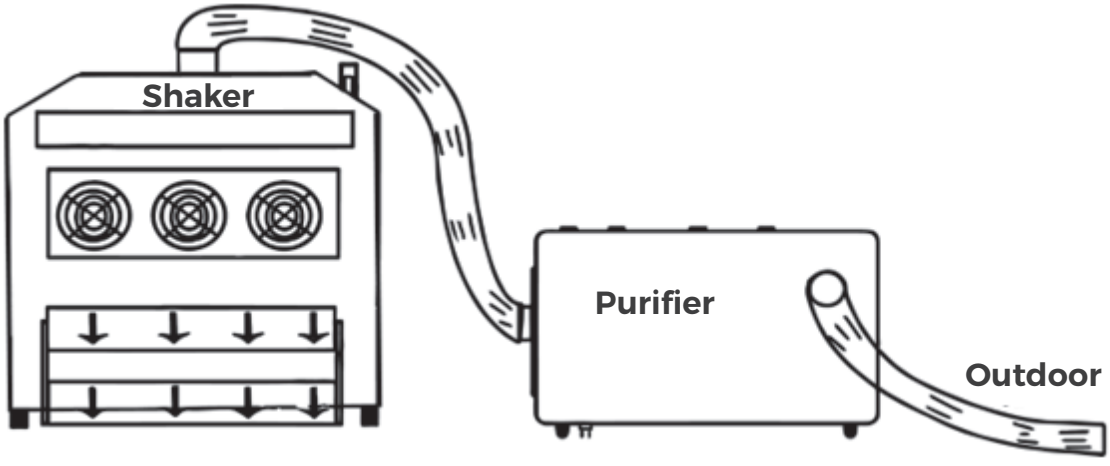
- **Machine Size:** 43.6in x 24.4in x 23.4in (1107mm x 620mm x 595mm)
- **Powder Shaker and Dryer Weight:** 79.2lbs (36kg)
- **Packaging Size:** 37.4in x 23.6in x 24.7in (950mm x 600mm x 628mm)
- **Gross Weight:** 123.5lbs (56kg)

2. Component and Installation

2.1 Parts Name and Functions

1. **Top Dryer:** Dry the media after dusting
2. **Smoke Outlet:** Discharge the air mixed with powder
3. **Shaking Powder**
4. **Powder**
5. **Control Panel**
6. **Powder box**
7. **Automatic Take-up System:** Tighten the cooled media into rolls

2.2 Connection of The Smoke Outlet



III. Equipment Operation

1. Control Panel

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

1.2 Confirm that the grounding wire should be firmly grounded.

1.3 Align the printer with the powder shaker before use (In order to avoid the material deviation during receiving).

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

1.5 Turn on the “POWER SWITCH” of the left of the control panel.

1.6 Turn on the “TOP DRYER HEAT”, and set the temperature control instrument preset to the temperature required for fixation need.

1.7 Adjust the properly speed of the shake powder motor.

1.8 **Top drying temperature setting:** 100˚C - 170˚C (212˚F - 338˚F) (the specific temperature is set according to the melting point of the powder)

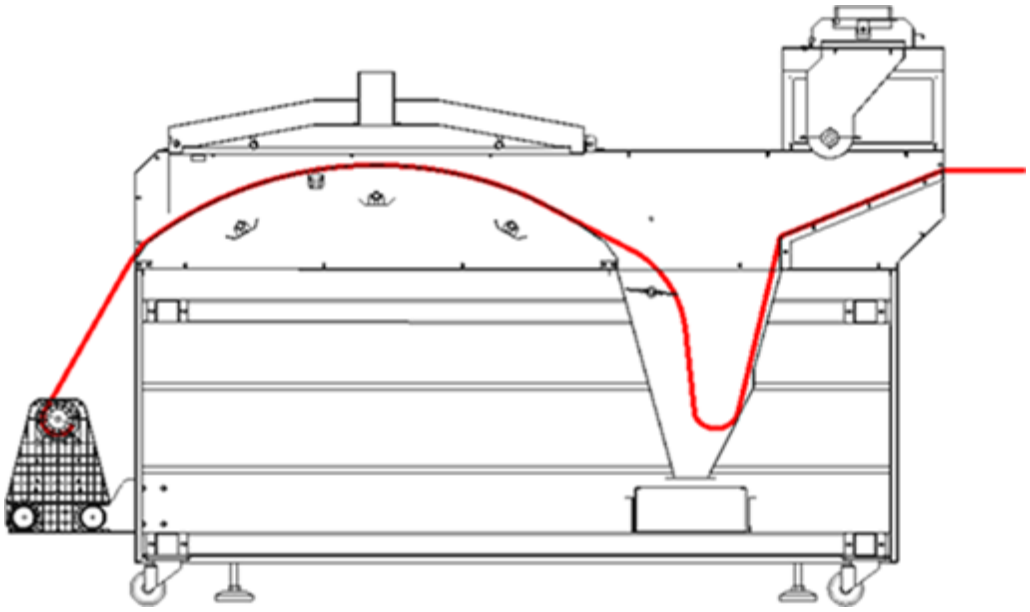
1.9 Front guide plate temperature setting: 60˚C - 70˚C (140˚F - 158˚F)

1.10 Powder shake speed setting: The speed is set to about 2 – 3

1.11 Setting for turning off/on the dusting function: click the “POWDER POSITIVE INVERSION” switch to select forward, reverse and close.

1.12 Turn off all “switches” when film fixation is finished.

2. The Film Feeding and Winding Method



2.1 Lead the media into powder box, though outside powder bar, and then cross the space between up dryer and platform dryer, wind the media to the paper tube of the take up winder, the winding operation complete..

2.2 Attention:

CAUTION

Ensure that the PET transfer media is smooth and aligned correctly to inhibit any skew that may be present through the heating tunnel and takeup reel.

2.3 When the film media is placed correctly to the first vacuum cylinder the shaker suction system should be in the on position. From this point the media will now be controlled by both the vacuum and mesh belt system through the heating tunnel.

It is important to note that when placing the media under the powder hopper for the first time that enough slack is provided to allow powder to fill at the bottom and then be shaken off as the the media moves back up through the belt system.

2.4 After finishing the current print job, cut the last part of PET media and enter the print linkage mode. The film will then be automatically wound by the take-up to complete the printing process.

3. Preset temperature settings

3.1 Press " ↵ " button and hold for about 2 seconds, and release it when the parameter appears. Then press " ↵ " button again and the instrument will display each parameter in turn.

3.2 When the heating switch is on and the set temperature appears, the parameter value can be modified by pressing the " ◁ △ ▽ " button.

3.3 Press the " ◁ " button first and then press " ↵ " to exit the parameter setting.

3.4 Press and hold the " ◁ " button to return to check the previous parameter.

3.5 The above temperature settings are set according to the actual degree of pulverization and the degree of deformation of the film. It is recommended that the upper drying temperature be turned up in units of 5˚C (41˚F) until the powder is melt.

IV. Equipment Maintenance

1. Disconnect the external power supply when repairing or cleaning the machine.
2. Clean the residual powder shaking film.
3. Clean the residual powder of the panel.
4. Clean the residual powder on the positioning shaft.
5. Clean the control box regularly, keep it dry.
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.
7. Don't leave the powder on the dusting box overnight to prevent the powder from getting damped, causing blockage of the dusting powder channel.
8. It needs to be filtered with a 60-mesh sieve before using the recycled powder.
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.
10. Add the powder slightly in order to prevent the powder from flying onto the conveyor belt and entering the air suction platform. Otherwise it will cause the motor to burn out or the conveyor belt to deform.
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.
12. Always remove any unwanted material from the recycled powder tray upon inspection. TPU powder should be completely white and sediment-free.

V. Troubleshooting

1. **Cocked media scratches the printhead.**
   a. Check if the height of the support frame is lower than the printing platform.
   b. Check if the media is laid flat.
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
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.
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. **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.
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 out 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.