CALCA® DIFFERENT & EASY

CALCA PRO 25.5in High Speed DTF Powder Shaker and Dryer

with Built-in Air Purifier & Touch Screen

DTF-PSM-PRO25

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 25.5in 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.

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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: AC220 V, 1 phase

Rated current: 36.4A

Rated power: 8000W

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 25.5in 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.

Data Sheet:

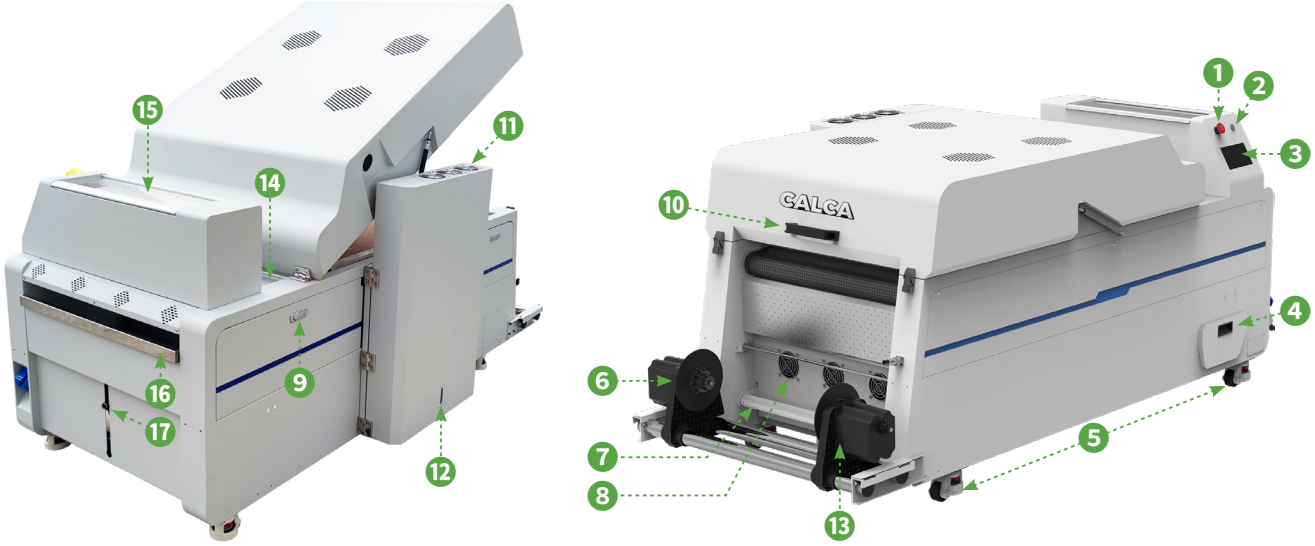
- **CALCA Brand:** USA registered
- **Maximum Shake Powder Width:** 650mm (25.5inches)
- **Drying Length:** 53in (1350mm)
- **Heating Element:** 10pcs infrared heat drying tube
- **UI Control:** 10.1in sensitive capacitive screen
- **Heating and Drying Function:** Quartz infrared heat drying tube
- **Rewinding Function:** Automatic induction rewinding
- **Heating and Drying Mode:** Front guide plate heating, upper drying curing
- **Cooling Mode:** 3 fan air cooling (Single row)

Package:

- **Machine Size:** 89in x 43.3in x 40.2in (2262mm x 1100mm x 1020mm)
- **Powder Shaker and Dryer Weight:** 661lbs (300kg)
- **Packaging Size:** 90.6in x 45.3in x 49.6in (2300mm x 1150mm x 1260mm)
- **Gross Weight:** 881.8lbs (400kg)

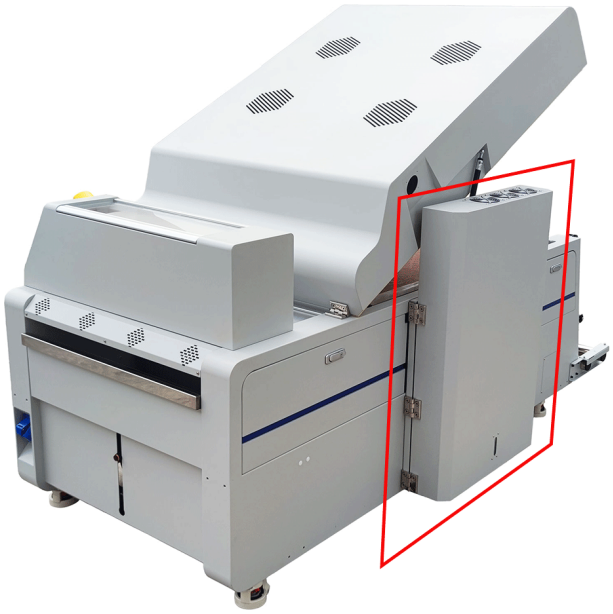
2. Component and Installation

2.1 Parts Name and Functions



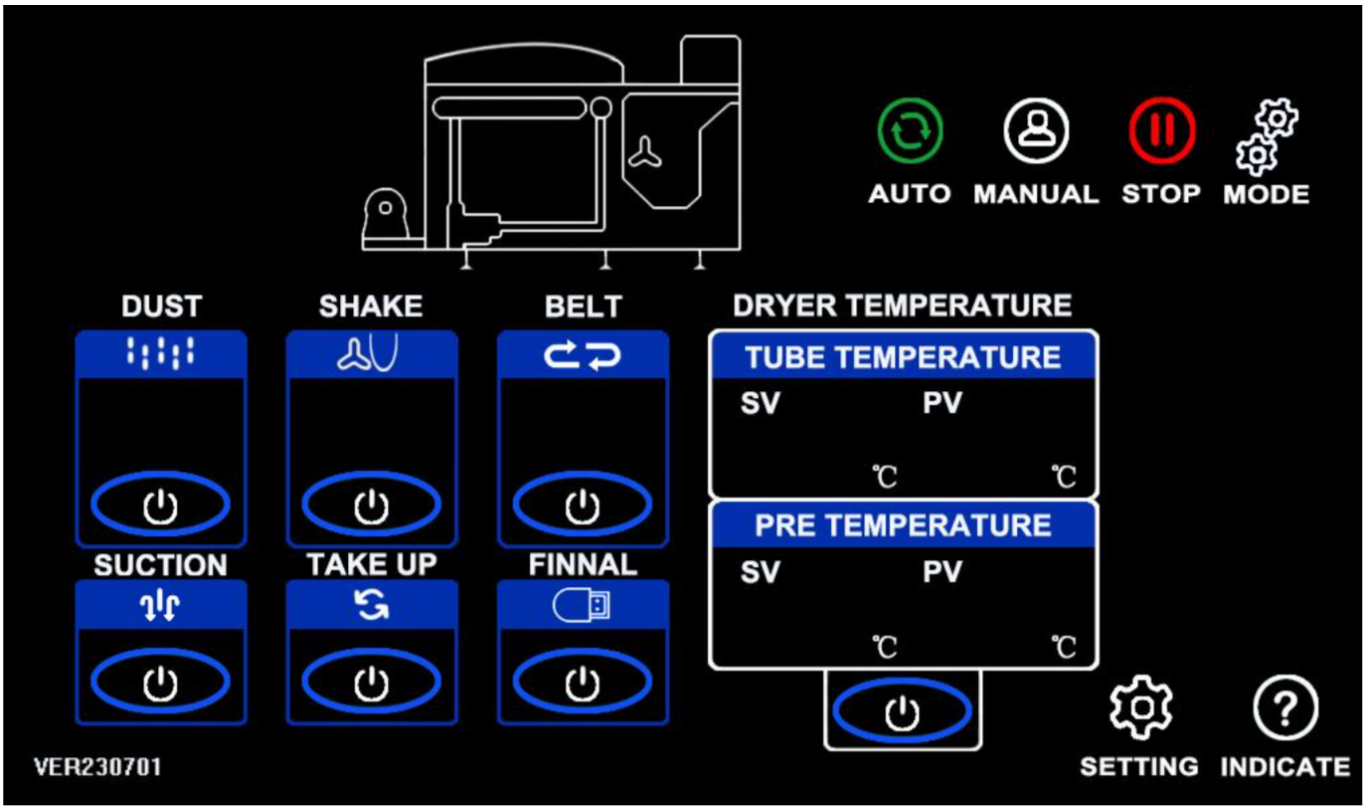
1. **Emergency stop switch:** Press the button in an emergency to stop the machine
2. **Power switch:** Button that turns the machine on or off
3. **Touch screen display:** Operate the machine or set parameters
4. **Powder tray:** Collect the scattered shaken powder
5. **Universal wheels:** Mobile machines or stationary machines
6. **Automatic take-up system:** Tighten the cooled media into rolls
7. **Tension bar:** Control the tension of paper collection, flatten the paper and prevent it from wrinkling
8. **Cooling fan:** To cool the media after drying
9. **Lock:** Lock the oven
10. **Handle:** The handle to open the oven
11. **Fan:** Cooling fan for oil fume filter
12. **Liquid level indicator:** Scale used to indicate the amount of waste oil stored
13. **Sensor device for paper take-up system**
14. **Powder shaker:** Shake off the hot melt powder on the heat transfer film
15. **Powder lowering slot:** The slot where hot melt powder falls, open the dust cover when heating the powder, and close it at other times
16. **Front heating guides:** Feed inlet
17. **Feed sensors:** Automatic mode, the feeder needs to touch the sensor to move

2.2 Connection of The Smoke Outlet



III. Equipment Operation

1. Touch Screen Display Controller



1.1 Confirm that the external power supply of the equipment is connected with AC220V, 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 "main power switch" of the control box.

1.6 Function Setting

AUTO

This function is the most commonly used automatic mode that operates using the WSP (weight sensing platform) and film sensor. If you want to automate your work according to the printer's print speed, use this function. When you select AUTO mode, all functions except for the DRYER' function are activated. For safety reasons, the user must select whether the DRYER operates or not.

MANUAL

This function is for manually operating each device individually.

If you want to operate each function separately or always operate the function without the operating condition (WSP -weight sensing platform or film detection sensor activated), please select the corresponding button.

STOP

This function is for manually operating each device individually.

If you want to operate each function separately or always operate the function without the operating condition (WSP -weight sensing platform or film detection sensor activated), please select the corresponding button.

MODE

This function is a memory feature that allows users to save their preferred settings and functions so that they can be easily accessed and used without having to manually select them each time. It can store up to 4 different sets of settings, which are called 'MODE 1','MODE 2','MODE 3', and 'MODE 4'.

When changing from the current mode to a different mode, the 'STOP' button must be pressed first before the mode can be changed. If the user sets the operation status of a function or another function while the mode is running, all

functions will immediately turn OFF.

This function is only available in manual mode. If changed to AUTO mode, the user's settings will be maintained, but all functions (except 'Dryer') will be turned on.

DUST

This function dispenses hot melt powder onto printed output.

The displayed value represents the weight of the hot melt powder measured by the sensor on the WSP (weight sensing platform). The weight is measured from 1 to 100,and the displayed value cannot be arbitrarily adjusted.

In manual mode, the powder motor operates continuously. In auto mode, the system operates based on the weight measured on the WSP. If the hot melt powder is insufficient, the system will automatically dispense the powder. If the hot melt powder is sufficient, it will not dispense any powder.

SHAKE

This function can shake off excess hot melt powder.

The user can adjust the speed of the motor, which can be set from 1 to 100.

Please note that it may not work properly at very low speeds.

BELT

Setting for turning off/on the guide belt function. Users can directly adjust the speed of the motor, and the speed can be adjusted from 1 to 100.

In manual mode:

Conditions that do not require the sensor to be activated are transmitted or run. When working on a sample job, the speed should be adjusted according to the drying state of the output.

In auto mode:

This function only works when both the WSP and film detection sensors are activated

SUCTION

This function operates the suction motor to attach the film to the conveyor belt and the cylindrical roller.

The suction motor operates only on the cylindrical roller when the front heating chamber is not open.

When the front heating chamber is opened, the suction motor operates on both the conveyor belt and the cylindrical roller. This function is used in the final stage of production or in the sample making process.

TAKE UP

This function operates the take up motor to retrieve the printed output.

The function operates and stops in conjunction with the position sensor of the tension bar.

For example, if the output is stopped, the take-up operation will stop as the position of the tension bar rises.

FINNAL

Click FINNAL, the membrane only works in automatic mode via weight sensor. (Usually only used to continue the automatic mode when there is only a part of the film at the end of the job)

DRYER TEMPERATURE

You can turn on and off the power of the dryer with top and front heating chambers, and set the temperature.

SV-current temperature / PV -set temperature

Tip: You can select either Celsius or Fahrenheit as the temperature display unit at the bottom of the setting page.

SETTING

Press the “gear symbol” in the lower right corner to enter the settings for Celsius and Fahrenheit, powder weight settings, etc. Please do not modify it easily.

1.7 When the “Manual” function is turned on in the upper right corner of the screen, the powder shaker will work according to the set parameters without affected by sensors. When the “AUTO” function is turned on, when the powder shaker sensor senses the film, it will work according to the set parameters. When there is no film, the guide belt will stop immediately, and the powder dusting and shaking will stop after 10 seconds. When there is a film, the shaker will work normally. When the “Stop” function is turned on, powder dusting, shaking and guide belt will all stop, and other functions will work normally. When “Auto” is turned on, the automatic working state will be restored, and when “Manual” is turned on, the manual working state will be restored.

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

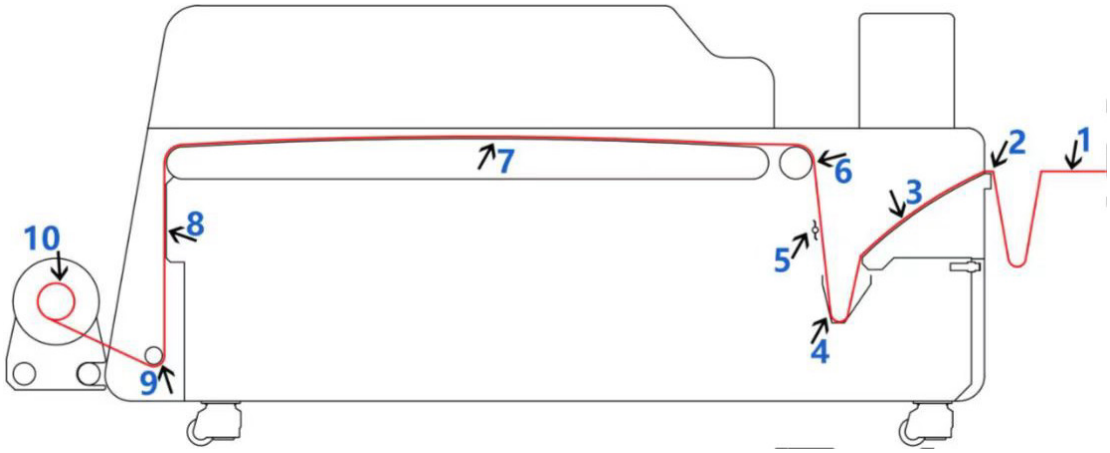
1.8 Front drying temperature setting: 100˚C - 170˚C (212˚F - 338˚F) (the specific temperature is set according to the melting point of the powder).

1.9 Backing drying temperature setting: 90˚C - 160˚C (194˚F - 320˚F).

1.10 The temperature of the front plate drying is set to about 60˚C- 80˚C (140˚F - 176˚F).

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

2. Schematic diagram of powder shaker medium travel



2.1 The Film Feeding and Winding Method

1. Printer platform
2. Media is fed from inlet 2
3. Passes through powder channel 3
4. Passes through fixed slot 4
5. Shakes off excess powder
6. Enters suction roller to suck up heat transfer film
7. Passes through mesh belt of oven
8. Fan cools heat transfer film
9. Heat transfer film is wound into tension rod
10. Finally, the media is tightened by paper take-up device to complete winding operation.

2.2 Attention:

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

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. Purifier filter replacement

Step 1 - Power off the unit and disconnect it from the electrical source.

Step 2 - Removal panel. Open the filter, there are six screws inside. Simply loosen the screws and slide the panel up to remove it.

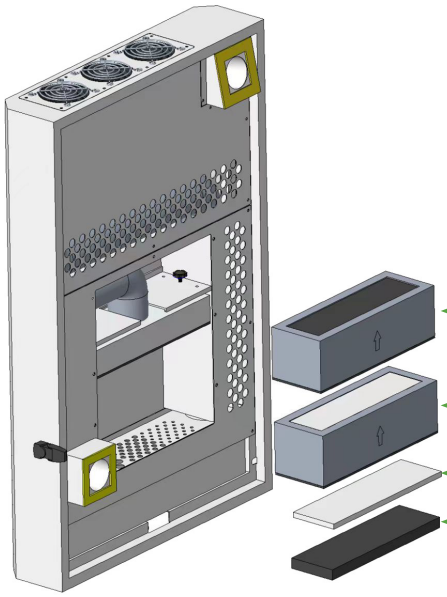
Step 3 - Rotate the handles on the left and right sides of the first layer until you can remove the air suction vent.

Step 4 - Remove the old filter system, which includes a protective cotton, primary Filter Cotton, medium Air filter, and active carbon filter.

Step 5 - Before inserting the new filter, wipe away the dust and debris with a dry cloth. Make sure not to touch or damage any components. Replace it with the new filter elements in the same order.

Step 6 - Close the panel securely and reconnect the power.

Filter recommendations for Use



Activated Carbon Filters: replace reaches 3-6 months

Medium Air filter: replace reaches 1-2 months

Primary Filter Cotton: replace reaches 7 days

Protective cotton: replace reaches 4-7 days

Tips: The protective cotton can be washed and dried and reused. It is recommended to reuse it 2-3 times. If it is found to be damaged, please replace it in time.

V. 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.

VI. 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.