



# Model 13 Automatic Shaker

## Installation and Operations Manual

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Dear Customer,

Congratulations on deciding to choose an STS adhesive shaker unit for your DTF printing activities. You made an excellent choice.

When you need service or technical help, please let us know your purchase invoice number. This will make it easier to provide you with correct service.

For your convenience, space is provided below for you to record your local STS service contact information.

STS TECHNICAL TEAM

Service number: 561-999-8818

email: [support@stsinks.com](mailto:support@stsinks.com)

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# 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.

## 1.1 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.

## 2. Safety

### 2.1 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.

### 2.2 Other prohibitions (dangerous procedures)



Using any parts other than genuine STS 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. Functional description

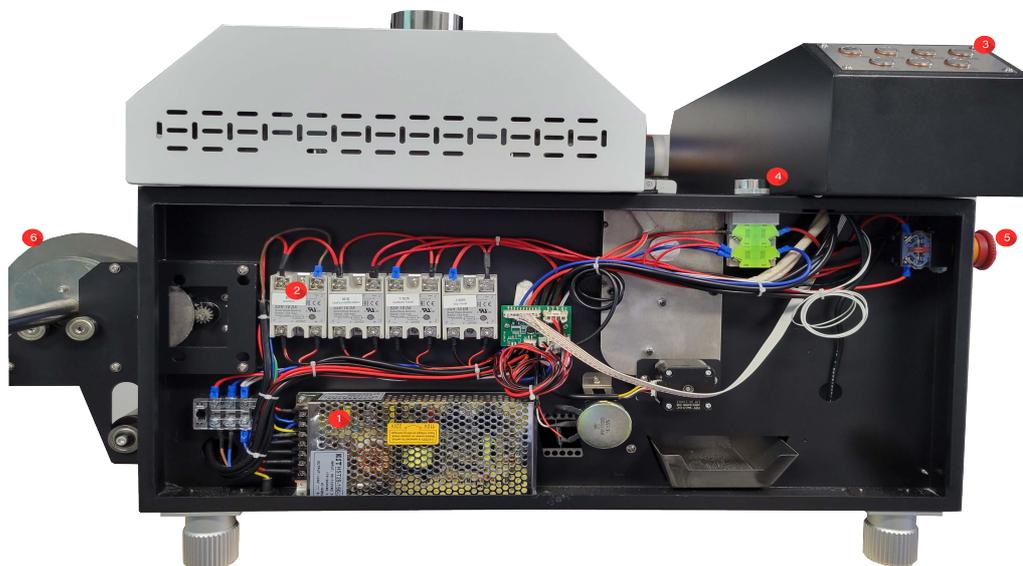
### 3.1 General

**Model 762 shakers  
are:**

- Heated by electrical coiled tubes
- Have both auto/manual interface
- Cylinder driven
- Electronically controlled 110/220v
- Auto sensor controlled



### 3.2.1 Component Locations

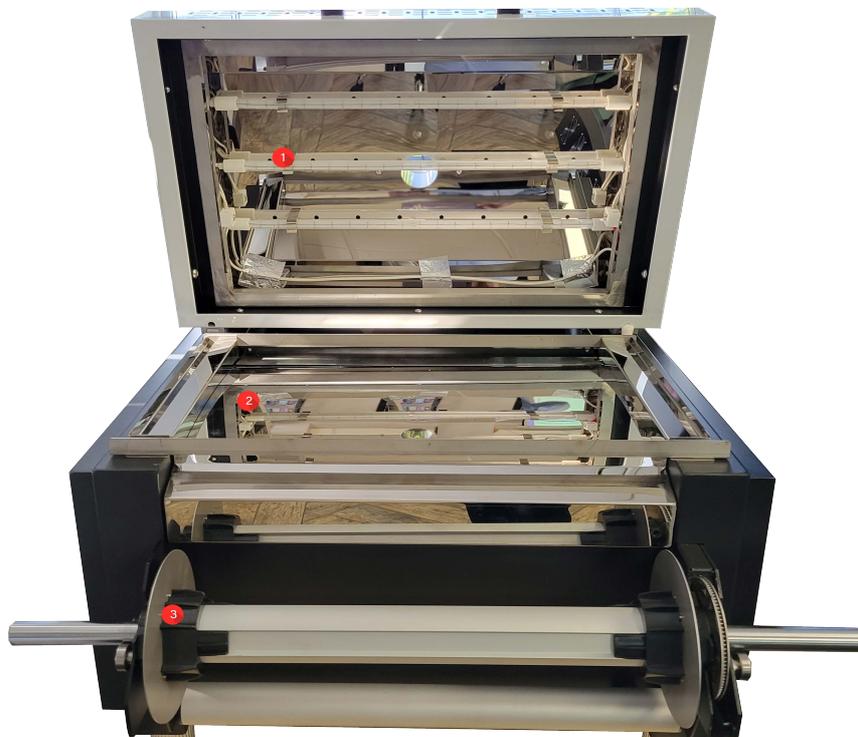


1. Powder box switch
2. Multifunction relay
3. PLC touch screen
4. Powder recycle drawer
5. Manual switch

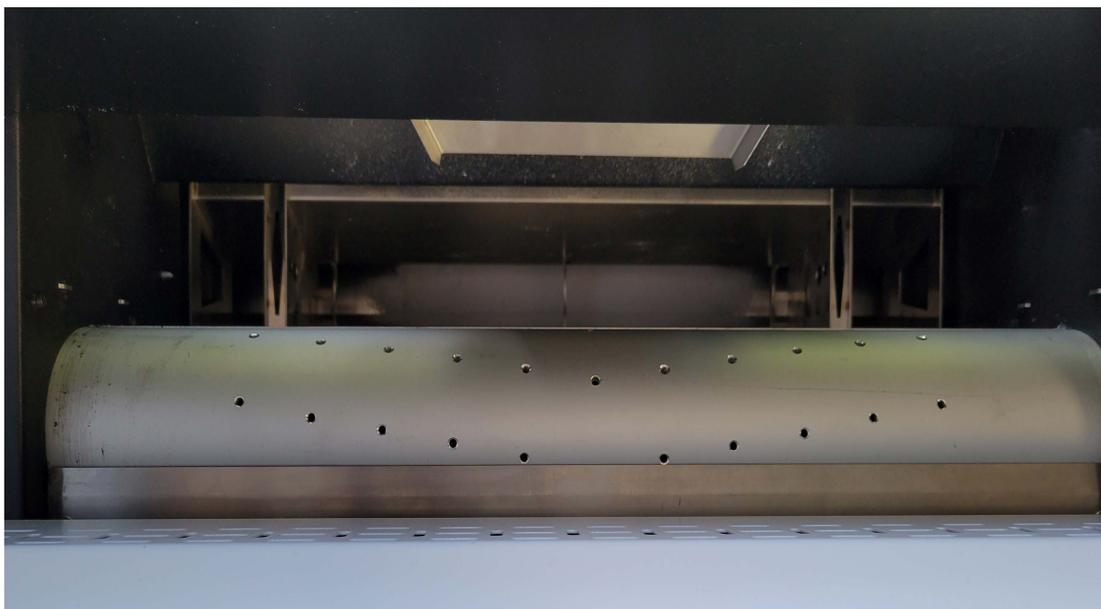
Powder box and TPU roller



1. Top coiled electrical heating elements
2. Bottom elements
3. Motorized take-up reel



Vacuum cylinder and TPU dispensing tray (top)



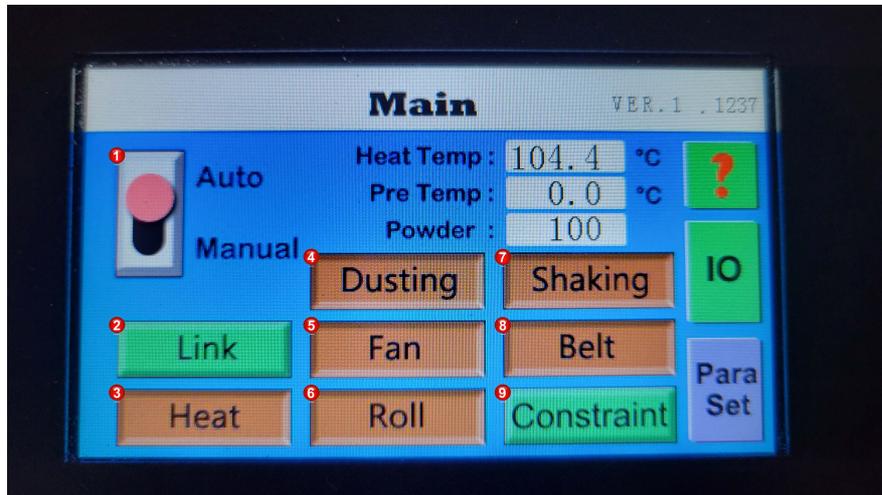
1. Front film sensor
2. Film loading slot



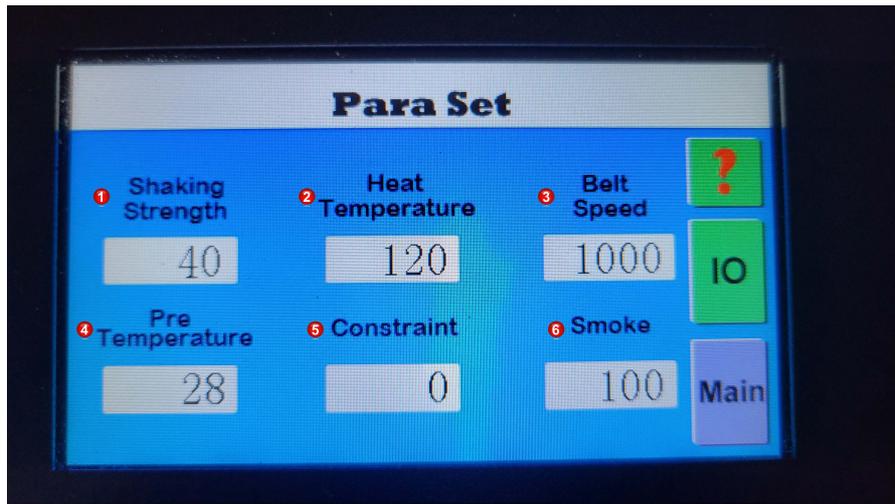
Recycled powder drawer



## HMI Control Screen



- (1) The automatic/manual modes control the complete operation of the STS Model 13 Automatic Shaker. The manual mode allows the user manually control the switches of each device function of the unit as in the selections below.
- (2) When Linkage is turned on in auto mode the vacuum cylinder turns on and is placed in auto mode.
- (3) Heating temperature controls.
- (4) Dusting off switch controls the opening and closing of the powder spreader.
- (5) Fan places the vacuum fan in off/on mode with red on and green off.
- (6) Roll on switch controls the functions of the take up reel
- (7) Shaking off switch controls the on and off functions of the powder shake element
- (8) Engages the vacuum cylinder to direct film into the heating chamber.
- (9) Constraint (which can be set in the "para-set" screen) will delay powder removal running time when the vacuum cylinder is not running.



- (1) Shaking strength modifies the intensity of the powder removal.
- (2) The heating temperature settings can be adjusted here.
- (3) Belt speeds can be adjusted faster or slower depending on your workflow environment and melting temperature of the powder.
- (4) Pre-temperature heats the powder box to aide in the dehumidification of the powder before it drops into the weight scale below.
- (5) Constraint sets the powder removal run time when the cylinder is not in operation.
- (6) Smoke is set in conjunction with the portable filtration device.



## Operations

Once the printer has printed enough transfers and the media has been fed into the front film loading slot and extends to the vacuum cylinders (pg.5-6) ensure that the PET transfer media is aligned correctly to inhibit any skew that may be present through the heating tunnel and take-up reel.

When the media is placed correctly to the vacuum cylinder the shaker suction system should be in the on or auto position. From this point the media will now be controlled by both the vacuum system and mesh belt through the heating tunnel (pg. 5). 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 powder scale to 170g and then be shaken off as the the media moves back up through the system. In addition, the media should also have enough slack to allow the front sensor to locate the material which then directs the system to pull the film through to the take-up reel.

After finishing the current print job, cut the last part of PET film. The film will then be automatically wound by the take-up to complete the printing process. Recycling the hot melt powder is accomplished simply by brushing the powder from the interior walls into the recycled powder tray (pg.6) and refilling it into the powder box.