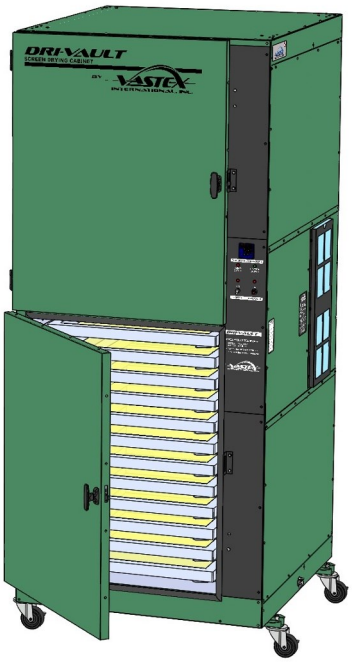
Year of manufacture: 20____

Doc. #01-14-011G
April 23, 2025
Original Instructions

SCREEN PRINTING EQUIPMENT

Dri-Vault

Assembly, Operating, and Maintenance Instructions
Dri-Vault VDC-253610, VDC-253624, VDC-513610
VDC-253610-DHO & VDC513610-DHO



VDC-253624

VDC-253610

VDC-513610

Vastex International, Inc.
7 Emery St
Bethlehem, Pa. 18015 USA
Phone# 610 625-2702
Fax# 610 625-2775
Web Site www.vastex.com

Authorized Representative in Europe:
Certification Experts BV
Nieuwstad 100 1381 CE Weesp,
The Netherlands
Tel : + 31 (0) 294 – 48 33 55
Fax : + 31 (0) 294 – 41 46 87

Vastex E-mail assistance

Purchasing & Product Info:
sales@vastex.com

Tech Support:
techsupport@vastex.com

Warranty

A copy of the warranty is also available at:
https://www.vastex.com/Library.php

Contents	Page#

Electrical Drawing #: _____ Rev:_____

Serial Number: **VTX**_____ Date:____/____/_____

(Please log your machine's serial number and date of purchase for future reference.)

Safety Instructions

The Instruction Manual and Safety Instructions must be read and understood by anyone operating the Vastex Screen Drying Cabinet.

- The operator should read and understand the instruction manual before operating this equipment. Store instruction manual and safety instructions near equipment for easy access to operators.
- VASTEX Screen Drying Cabinet is intended for the drying of emulsion on screen printing screens. Do not use for any other purpose unless authorized by Vastex International, Inc. Use of this equipment for any other purpose can be dangerous and may cause damage to this equipment voiding the warranty.
- It is recommended that the area around this equipment be designated as a work area and only authorized employees are allowed in this area.
- Children and pets must be kept clear from the work area.
- Never leave equipment unattended.
- DO NOT operate dry cabinet with any cover or guard removed.
- Operator must be familiar with controls of the dryer.
- Before starting production, the operator must check that all covers and guards are in place, no material has been left in the cabinet, and the exhaust duct is clear of any obstructions.
- Always turn off power at the main disconnect at the end of production.
- Do Not remove any cover or guard until power at the main disconnect is switched off and locked out. No unauthorized persons are to be allowed inside the control boxes.
- Turn off and lock out power at the main disconnect before cleaning and maintenance.
- Only qualified technicians should be allowed to make repairs on the VASTEX Screen Drying Cabinet.
- **Noise and Vibration: This noise level produced by this equipment does not exceed 70 dB(A).**

Machine Specifications

Drying times will vary. Humidity, thickness and type of emulsion used, and the size of screens are factors in Dri-Vault curing time.

	VDC-253610	VDC-513610	VDC-253624
Defect Warranty	3 Year	3Year	3 Year
Maximum # of Screens	10 @ maximum size	(10) @ 51" x 36" / (20) @ 25" x 36"	24 @ maximum size
Maximum Screen Size	25" x 36" x 1.625" (63.5 x 91.4 x 4.12 cm)	(10 screens) @ 51" x 36"	25" x 36" x 1.625" (63.5 x 91.4 x 4.12 cm)
Smallest Screen Width	18" (46 cm)	No minimum size	18" (46 cm)
Blower (Free Air)	200 CFM (5.7 cmm)120v or 290 CFM (8.5cmm) 240volt	290 CFM (8.2 CMM)	350 CFM (9.9 CMM)
Overall Depth x Width x Height	39.5" x 34.75" x 29" (100 x 88 x 74cm)	37.9" x 62.5"x 32.3" (96.3 x 159.1 x 81.9cm)	39.5" x 34.75" x 81" (100 x 88 x 206cm)
Heater Wattage	1,250 Watts 120 Volts or 1,550 Watts 240 Volts	1,550 Watts @ 240 Volts	2 x 1,550 = 3,100 Watts 240 Volts
Electrical Power	120V / 10A / 1 Ph. / 60 HZ / NEMA 5-15P plug or 240V / 6A / 1 Ph. / 50/60 HZ / NEMA 6-15P	240V / 6A / 1 Ph. / NEMA 6-15P plug	240V / 16A / 1 Ph. / 50/60 HZ /NEMA 6-20P plug
Shipping Weight*	367 lbs (166.5 kg)	573 lbs (277 kg)	670 lbs (303 kg)
Shipping Dimensions*	43" x 43" x 48" [109 x 109 x 122 cm]	69" x 43" x 35" (175 x 109 x 89 cm)	43" x 43" x 84" [109 x 109 x 213 cm]

Putting this Equipment into Service —

To put your drying cabinet into use:
1.) Follow the assembly instructions on page 4 of this manual.
2.) Familiarize yourself with the controls and features of your unit (see page 5 and 6).

Using this Equipment —

To use your drying cabinet, follow the operating and maintenance instructions on page 7.

Assembly

1) Unpack your drying cabinet and remove the (4) lag screws (with a 7/16 socket) holding it down to the skid. Open the doors and remove the Shelves, the Center Tree (Wide Dri-Vault only), and any other items inside.

2) Slide the drying cabinet to the edge of the skid and install the (4) casters or levelers at each corner of the machine. Tighten the nut with a 3/4” wrench or a 3/4” socket.

3) Clean the inside thoroughly, first vacuuming then wiping down with a damp lint free cloth. This should be repeated several times after turning on the unit to allow any trapped dust to be removed.

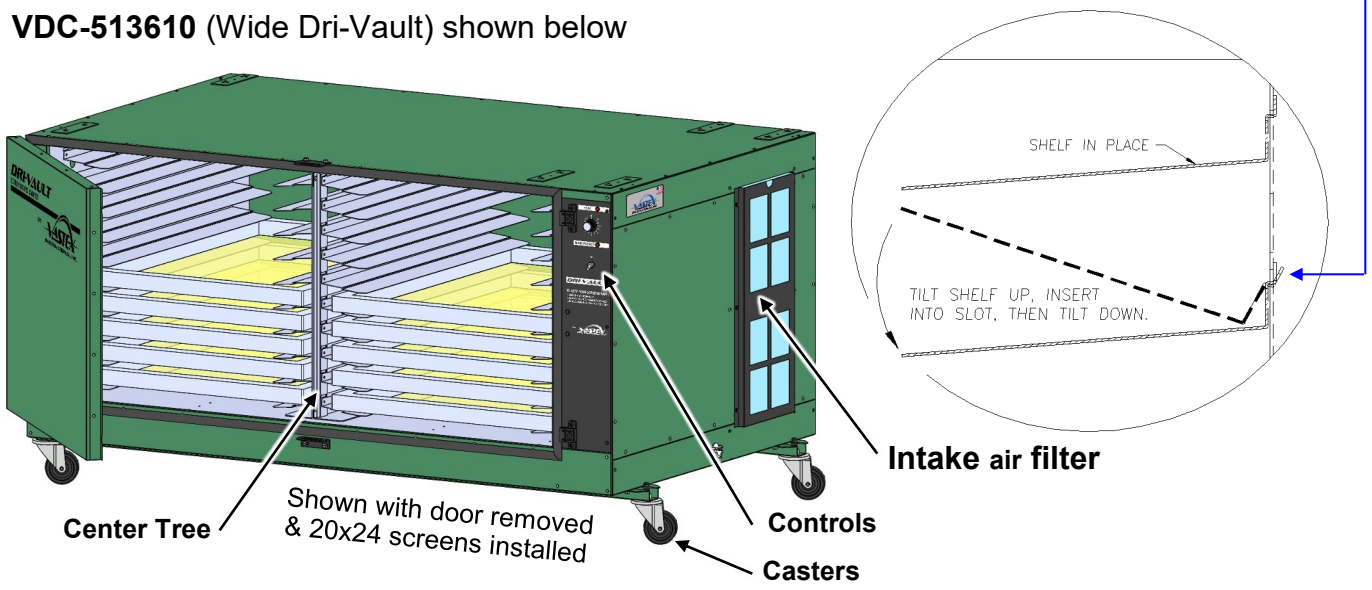
NOTE: Debris left in the chamber will contaminate screens and cause the image area to develop pinholes.

4) Unwrap the shelves and wipe clean with a damp lint free rag. Install the shelves onto the Center Tree (Wide Dri-Vault only), and inside walls of the drying cabinet. Install the shelves as shown.

NOTE: #8 Philips head sheet metal screws will be provided for you to securely fasten the shelves to the Center Tree.

NOTE: Be sure all 3 tabs of each shelf are properly seated!

VDC-513610 (Wide Dri-Vault) shown below



5) It is recommended that the exhaust be ducted outside to remove fumes and moisture from the work environment. Do not exceed (1) elbow (90 deg.), and/or 8 feet of straight duct. In the event this must be exceeded, a duct fan (booster) must be added to ensure proper airflow. If it is not exhausted to the outside, make sure the elbow provided is used and pointed to the ground to restrict light from entering the cabinet.

— **Power users:** For shops that want to have the fastest dry times with a full cabinet, it is highly recommended that you add a booster fan to the exhaust. This will draw the most amount of air through the cabinet and will decrease dry times. The booster should be sized to match or slightly exceed the machine’s rated CFM(CMM).

— **Humidity is a big factor in dry times:** If your region is very humid, you should consider using your Dri-Vault in an air conditioned room. If that is not an option, adding a dehumidifier next to the intake of the Dri-Vault would decrease dry times and increase efficiency.

Controls

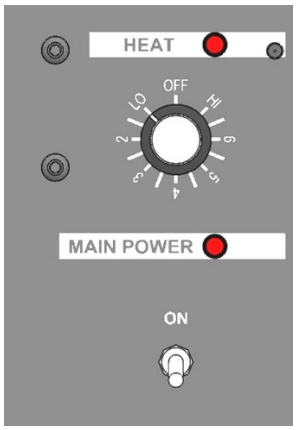
Models: VDC-253610 & VDC-513610

Red Pilot Light (Main Power) is located above the breaker/switch, when illuminated, it indicates the switch is in the “on” position, there is power to the unit, and the fan(s) will be on.

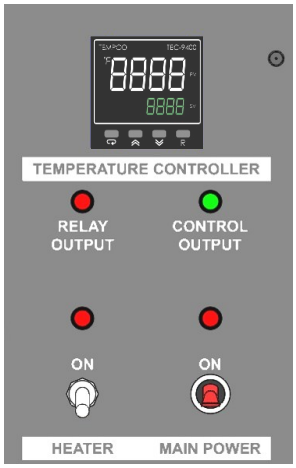
Breaker Switch is used to turn the machine on and off. In the event of a short or electrical failure, the switch will trip into the middle position. If the breaker will not reset, or it trips often, contact Vastex tech support or a licensed electrician.

Red Pilot Light (Heater) is located below the temperature controller, when illuminated it indicates the heat is turned on.

Variable Heat Control is used to control the temperature setting. The control has positions from LO to HI. The power to the heater(s) is cycled on and off to vary the temperature. The higher the number on the controller the longer the on cycle and shorter the off cycle time. The “HI” position keeps the power on constantly. Check the temp inside the cabinet with a laser temperature gun.



VDC-253610 & VDC-513610



VDC-253624

Models: VDC-253624, VDC-253610-DHO, & VDC-513610-DHO

Red Pilot Light (Main Power) is located above the breaker/switch, when illuminated, it indicates the switch is in the “on” position, there is power to the unit, and the fan(s) will be on.

Breaker Switch is used to turn the machine on and off. In the event of a short or electrical failure, the switch will trip into the middle position. If the breaker will not reset, or it trips often, contact Vastex tech support or a licensed electrician.

Green Pilot Light (Control Output), when illuminated, it indicates the controller is calling for heat.

Red Pilot Light (Heater) is located above the heat on/off switch, when illuminated it indicates the controller is receiving power.

Red Pilot Light (Relay Output), when illuminated it indicates the relay contacts are closed and heater should be receiving power.

Temperature Control: Microprocessor Based PID Controller. Two digital readouts, top digital readout is the “Process Value” (PV), temperature at the sensor, bottom readout is the “Set Value” (SV), the temperature you set. All values are in Fahrenheit degrees standard but can be changed to Celsius. Four buttons along the bottom of the control unit, the two outside oval shaped are for setting operating parameters. (Factory set! Do not attempt to alter without consulting a VASTEX factory rep.) The two buttons in the middle, the “up arrow” and the “down arrow,” are for adjusting the “Set Value”(SV).

VDC-253610 DHO & VDC-513610 DHO

Temperature Controller

Auto Tuning — Automatic Tuning has been performed at factory for all machines. Automatic Tuning must be performed by the customer for the following reasons; When equipment is other than 240v (e.g. 208v), replacing a controller, replacing a sensor, and/or new heating elements. Controller set point value must be set to 100°F (38°C).

Procedure

1) Press and hold the scroll button until A-T is displayed. Release the button.

2) Press and hold the scroll button again until the output indicator displays TUNE and is flashing. Release the button.

3) After releasing the button, the work PASS will be displayed. Press the scroll button one time and the word will disappear.

4) TUNE will continue to flash on the output indicator until the auto tuning process is complete.

5) The process can take as long as 30 minutes.

Manual Mode — In the event of a faulty sensor, the display will read “SbEr” and the controller will automatically go into manual mode. Directly below the “SbEr” will be H0.00 and the output indicator will display MAN and be flashing. (Display on controller will show H0.00. Press the up or down arrow to set percentage of time the heater will cycle on and off. (i.e. a setting of 80.0 will cycle heater on 80% of time and off 20%). Controller can remain in this mode while resuming production.)

If the need arises to put the controller in manual mode for any reason other than a faulty sensor, follow the procedure below.

Procedure

1) Press and hold the scroll button until the work HANd is displayed. Release the button.

2) Press and hold the scroll button again until the output indicator displays MAN and is flashing.

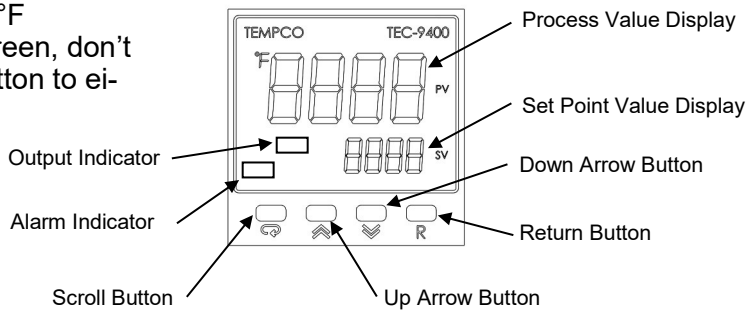
3) After releasing the button, the work FILE will be displayed. Press the scroll button one time and the word will disappear.

Celsius / Fahrenheit — The temperature controller on your Vastex Infrared dryer is normally set to Fahrenheit as a default. Follow the procedure below to switch the controller from Fahrenheit to Celsius.

Procedure

1) Press and hold the scroll button until the word SEt is displayed. Release the button.

2) Press the scroll button 5 times until the word UNIt is displayed. Below the word UNIt you will see °F in green. This indicates that the temperature displayed in in Fahrenheit. If °F is displayed, press the down arrow button to change to °C (Celsius). If °C is displayed, press the up arrow button one time to change to °F (Fahrenheit). If PU is displayed in green, don’t panic, just press the down arrow button to either °F or °C.



NOTE: The temperature controller was updated on or around mid November 2020. Model number changed from a TEC-9090 to TEC-9400.

Operation

1) Before using the dry cabinet, make sure the inside is thoroughly **clean** and **dust free**. Never operate with dirty or missing intake filter.

2) Adjust the Center Tree to accommodate the size, and number, of screens you will be drying (Wide Dri-Vault Only). Insert the screens mesh-side (shirt-side) down onto the shelves. Screens should be free of dripping emulsion or water. Close and latch the door.

To prevent over curing the emulsion, which can cause premature exposure, screen temperature should not exceed 95°F (35°C).

3) Turn on the power switch, set the temperature control, and allow the unit to run until the screens are dry. The unit should be run between 85°F and 95°F (29°C to 35°C) to properly dry the emulsion. It will take approximately 40 minutes to dry a fully loaded cabinet of coated screens at this temperature. Actual drying time will depend on your shop humidity and temperature. On digitally controlled units, set temperature to 90° F (32°C). On dial units, start on #6. Check temperature of a test screen with a laser temperature gun. Make adjustments up or down in order to get between 85°F and 95°F (29°C to 35°C). The cabinet can be operated with the heat and blower or the blower only.

Due to the location of the thermocouple some machines may have had an offset programmed into the temperature controller to more closely read the chamber temperature.

4) Once the screens are dry, turn the temperature controller to the off position. Allow the blower to run for 5 minutes after the heating element is shut off. This will cool down the heater to avoid damage to the controls. The screens can be stored in the cabinet until needed.

Maintenance

1) Every week, the intake filter should be checked and cleaned as needed. A dirty filter reduces air flow thru the cabinet and will alter the drying process. The filter should be replaced as necessary. Filter material can be ordered through Vastex.

2) It is important that the inside of the dry cabinet is keep clean. Periodic cleaning of the inside of the cabinet is recommended.

3) Check the exhaust duct for debris and clogging. Any restriction in the exhaust ducting will alter the drying process.

Troubleshooting

Machine controls operate normally, but drying inadequate

	Possible Cause	Solution
Poor airflow	Air inlet filter clogged	Clean / replace filter
Poor airflow	Exhaust clogged or restricted	Remove restriction
Poor airflow	Exhaust line too long, or contains too many right-angle fittings	Reduce length, number of fittings, or install booster fan
High ambient humidity	Humidity in room where unit is located	Move unit to air-conditioned room, or place dehumidifier near unit

No Heat

	Possible Cause	Solution
Main Power Pilot Light out	Main Power switch OFF Machine unplugged Loose connections / internal electrical fault Customer power failed or outlet failed Circuit breaker switch trips to center position	Switch Main Power ON Plug machine into outlet Check connections Check power at main disconnect Internal fault - contact Vastex
Main Power Pilot Light lit: VDC-253610 & VDC-513610 All other models	Temperature control knob set to “OFF” Is “HEATER” switch ON?	Set temperature control knob Set “HEATER” switch ON.
Main Power Pilot Light lit: All Models	Is “HEAT” light ON? “HEAT” light OFF	Possible bad heating element. Possible bad controller/thermostat

Pinholes / flaws in screen

	Possible Cause	Solution
Chamber contaminated	Debris in drying chamber	Wipe inside of chamber with lint-free cloth, then vacuum.

Safety during maintenance and troubleshooting: ensure that your equipment is de-energized and the line cord (if machine has a plug) or branch circuit breaker (if machine is hardwired) is locked out before removing any panels or performing any troubleshooting or maintenance on internal parts. Only a qualified electrician or technician should perform testing on any internal components while equipment is powered. Allow time for heating elements to cool before removing any covers or panels. De-energize equipment before servicing filters or cleaning drying chambers.

Stability during use, transport, assembly, dismantling, testing, foreseeable breakdowns: This equipment is designed and expected to be stable under all foreseeable conditions, so long as the procedures in this manual are followed.

Safety during transport, handling, and storage: This equipment does not present any special safety risks. When moving the equipment, be aware of the following weights:
VDC-253610: 367 lbs (166.5 kg)
VDC-513610: 573 lbs (277 kg)
VDC-253624: 670 lbs (303 kg)

Essential characteristics of tools which may be fitted to this machinery: This equipment is not designed to be used with any additional attachments or tools, other than as specifically listed in this manual.

Notes