



# Operations Manual

## Vastex Screen Drying Cabinet

### Model VDC-253624



Machine Serial # VTX-00\_\_\_\_\_

This manual includes the following documents.

- 01-14-006 Operations and Maintenance
- 02-08-004 Electrical Diagram
- 01-00-005 Warranty
- 01-00-006 Warranty Summary
- 01-00-015 Terms and Conditions

# *Vastex Drying Cabinet*

Doc. # 01-14-006-A

**MODELS VDC-253624 (240 Volts)  
Maximum Screen Size 25 x 36**

## **Notice:**

- 1) Inspect all packages while unpacking and notify the shipping company if any damages are detected. Your new drying cabinet was assembled and tested at the factory.
- 2) **Drying times will vary.** Humidity, thickness and type of emulsion used, and size of screens are factors in Dri-Vault curing time.

## *Safety Instructions for the VASTEX Screen Drying Cabinet*

*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 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.

# Operation and Maintenance Manual

Doc. # 01-14-006

## I Electrical requirements:

1. A dedicated 240 volt grounded outlet is required. The drying cabinet will draw approximately 16 amps total at 240 volts.

## II Assembly

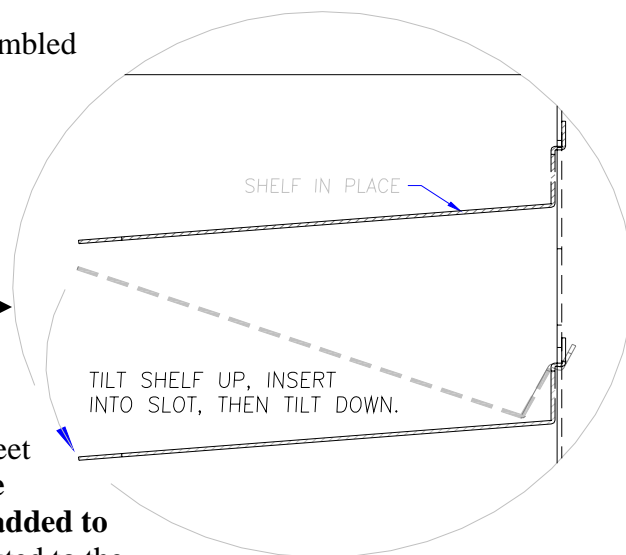
1. Unpack your drying cabinet and remove the lag screws holding it down to the skid. Open the door and remove the wrapped shelves and any other items.
2. Carefully slide dry cabinet to edge of shipping pallet allowing access to bottom caster mounting bracket. Install two casters, carefully rotate cabinet on pallet to allow access to attach two remaining casters. Cabinet can now be moved off pallet and onto casters.
3. Clean the inside thoroughly, first vacuuming then wiping down with a damp cloth. This should be repeated several times after turning on the unit to allow any trapped dust to be removed.

**Debris left in the chamber can contaminate screens and cause the image area to develop pinholes.**

4. The drying cabinet was shipped fully assembled with the exception of:
  - (48) Shelves
  - (1) 4" Duct Elbow
  - (4) Caster Wheels

5. Unwrap the shelves, wipe clean, and install as shown here.

6. 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.



## III Controls

1. A **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 trips often contact Vastex tech support or a licensed electrician.
2. A **red pilot light** is located above the breaker/switch, when illuminated it indicates the switch is in the "on" position and there is power to the unit.
3. The **heater switch** turns on the controller allowing operation of heating elements.

## **IV Temperature Controller**

**Tempco Microprocessor Based Auto Tune PID Controller** is used on this unit. Automatic Tuning of controller has been performed at the factory for all 240v machines. Refer to section 4.4.1 for Automatic Tuning. The front of the control has two digital readouts. The top is the “Process Value” (PV), which is the actual temperature at the sensor. The bottom is the “Set Value” (SV), which is the temperature you set the machine to (see page 4 "Setting proper temperature). All values are in Fahrenheit degrees. There are four buttons along the bottom of the control unit. The two on either side that are oval shaped with arrows are for setting operating parameters. (*Factory set. Do not attempt to alter without first 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). A green light (CON) illuminate when the controller is calling for heat (output on). A red light (ALM) will illuminate when the actual temp is higher by some predetermined amount than the set value. With the power on, push the up arrow and the SV temperature will climb. The longer you hold the button, the faster the SV will climb, it will start climbing by one, then ten, then hundreds. Set the desired temperature and allow approximately 15 minutes for heat up. As the temperature at the sensor approaches the set point, the controller starts to cycle off & on to slow its rise. The first couple of times the controller is used it may overshoot the set point while it’s learning the characteristics of the heater. YES, the controller does teach itself how to respond to the heaters. Refer to the trouble shooting section for Controller Error Messages.

- 1) Automatic Tuning** has been performed at factory for all 240v 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 “J” sensor, and/or new heating elements. Controller set point value must be set between 700 to 750 degrees before beginning auto-tuning.

Procedure: a.) Press the return key for at least 6 seconds (maximum 16 seconds). This initializes the auto-tune function. (To abort auto-tuning procedure, press and release the return key.)

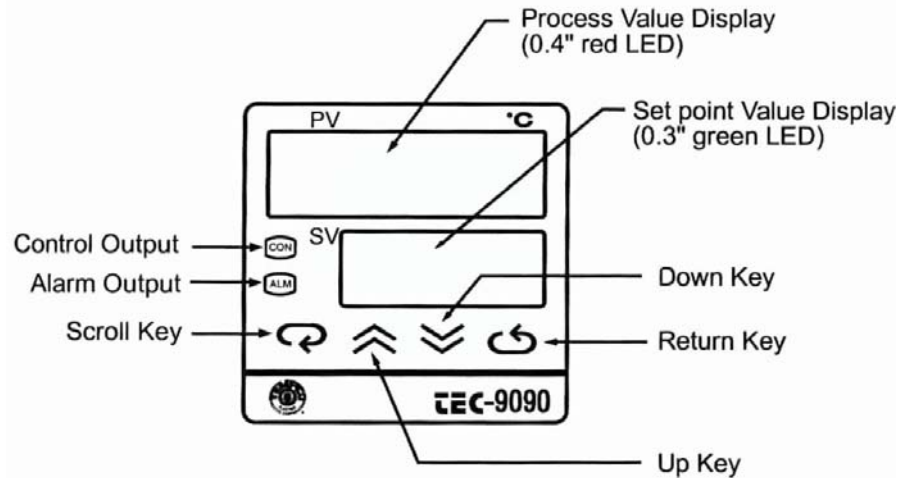
b.) The decimal point in the lower right hand corner of the PV display flashes to indicate that auto-tuning is in progress. Auto-tune is complete when flashing stops.

c.) Automatic Tuning may take up to ½ hour. Remember, while the display point flashes, the controller is auto-tuning.

Note: If an AT error (AtEr) occurs, the automatic tuning process is aborted due to the system operating in ON-OFF control mode (PB=0). The process will also be aborted if the set point is set too close to the process temperature or if there is insufficient capacity in the system to reach the set point (e.g. inadequate heating power available). Upon completion of auto-tuning the new PID settings are automatically entered into the controller’s non-volatile memory.

- 2) Manual Mode-** Press and hold both the scroll and return key for 6 seconds to enter manual mode. Display on controller will show H000. Press the up or down arrow to set percentage of time the heater will cycle on and off. (i.e. Setting of 80.0 will cycle heater on 80% of time and off 20%). Controller can remain in this mode while resuming production. Replace malfunctioning “J” Sensor and proceed with Auto Tuning.

3) **Main Power Light** indicates there is power going into the control box. (**Caution do not enter any part of this machine if the power light is on.**)



## **V Operation**

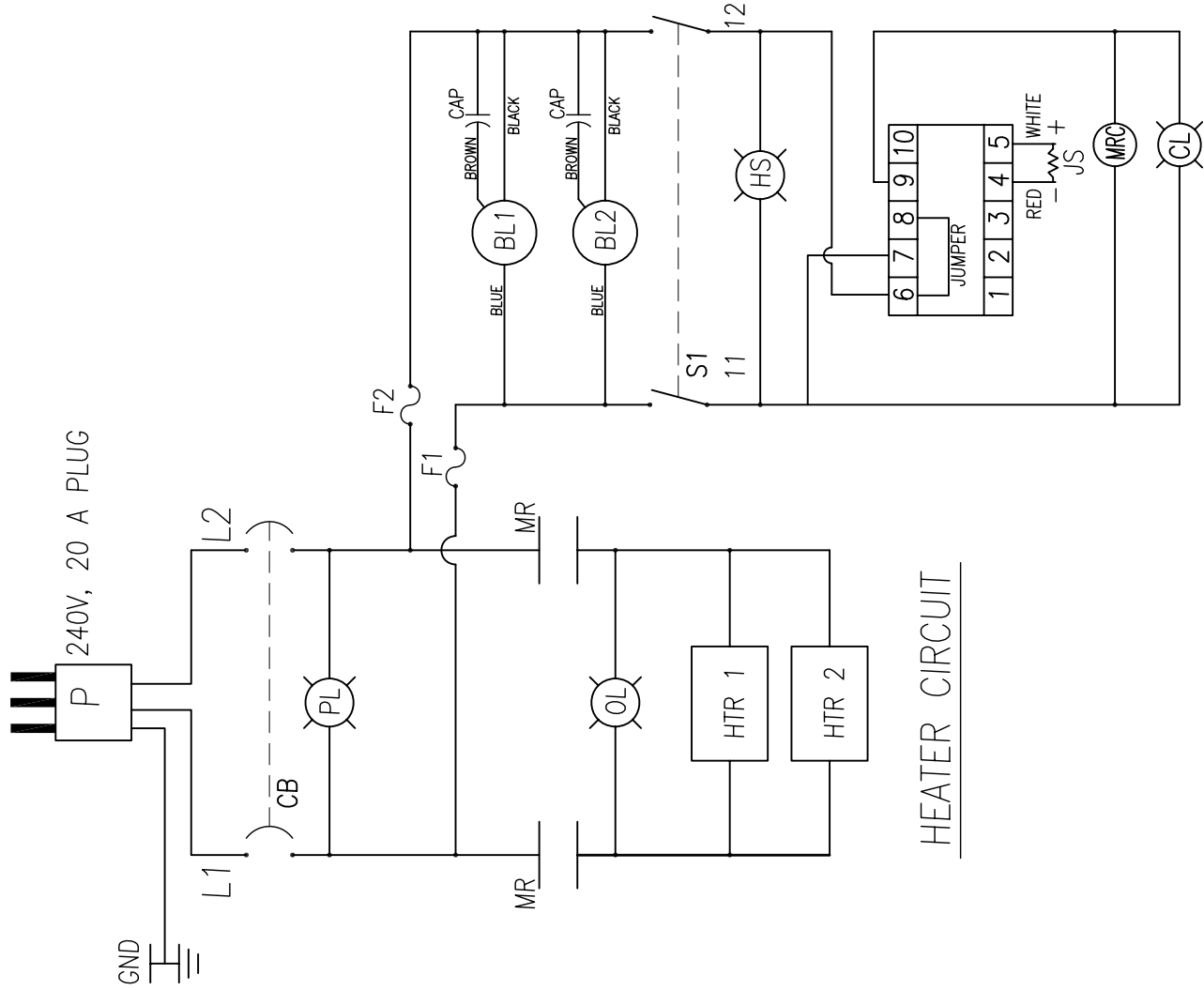
1. Before operating your machine, make sure the inside is thoroughly clean and dust free. Refer to the assembly section for cleaning recommendations. **Never** operate the dry cabinet with dirty or missing inlet filters.
2. Once the machine is clean, insert the screens mesh-side (shirt-side) down onto the shelves. Screens should be free of dripping emulsion or water. Close and latch the door.
3. Turn on the main power switch, indicator light above switch will now be illuminated and the blower will now be running. The cabinet can be operated with heater and blower or blower only. Cabinet cannot be operated with only heat.
4. Turn on the heater switch. The light above the heater switch, control output light and controller will be illuminated. Set controller to desired operating temperature. The unit is designed to keep the internal temperature at 90- 95° F. It will take as little as 20 minutes to dry a coated screen at this temperature. Actual drying time will depend on your shop humidity, room temperature and / or thickness of coating on screens. Approximate heat up time for cabinet is 10 minutes.
5. Once the screens are dry, turn the machine off, you can store the screens in the cabinet until needed.

## **VI Maintenance**

There are a few things that need to be maintained on a regular basis. These checks should be done as often as needed, but these are the recommended periods between regular cleanings.

1. Every week, the filter intake should be checked and cleaned as needed. The filter should be replaced as necessary, once it becomes too clogged to use effectively.
2. At least twice a month, the inside of the cabinet should be checked and cleaned to clear it of any debris.

F.L.A. @ 240V = 16AMPS



HEATER CIRCUIT

LEGEND

DESCRIPTION	PART NO.
BL1 & BL2 - 240V BLOWERS	04-02-036
CAP - CAPACITOR 4 MICROFARAD/450 VOLT	04-03-195
CB - 240V DPDT CIRCUIT BREAKER	04-01-056
CL - 250V RELAY COIL LIGHT	04-03-022
F1 & F2 - 250V 3 AMP AGC SYSTEM FUSE	04-03-025
HTR(1, 2) - 240V 1550 WATT STRIP HEATERS	04-18-006
HS - 250V RED HEAT SWITCH LIGHT	04-03-021
JS - SENSOR "TYPE J"	04-01-080
OL - 250V RELAY RED OUTPUT LIGHT	04-03-021
P - 250V POWER CORD NEMA 6-20P	04-03-127
PL - 250V MAIN RED POWER LIGHT	04-03-021
MR - 250V MECHANICAL RELAY	04-01-104
MRC - 250V MECHANICAL RELAY COIL	04-01-104
S1 - HEAT SWITCH DPST	04-01-068
TC - TEMP. CONTROL DIGITAL 1/16 DIN	04-01-081

REVISIONS			
REV	DESCRIPTION	DATE	BY APP'D
A	ADDED SSR MECHANICAL RELAY REPLACED SSR	1/10/00	MIKE
B		3/10/10	MIKE

SCREEN PRINTING  
VASTEX.COM

TOLERANCES UNLESS OTHERWISE SPECIFIED  
 .XXX .XX .X  
 DECIMAL ±.010 ±.015 ±.032  
 FRACTION ±1/16  
 ANGLE ±1°

125 ✓

SCALE: NONE

SHEET 1 OF 1

VASTEX INTERNATIONAL

TITLE: VDC-2536.24  
 240 VOLT/16 AMP 50/60 HZ  
 SCREEN DRYING SYSTEM

SIZE DRAWING NO. C 02-08-004  
 REV# B

# **Vastex Warranty**

Doc#01-00-005B Revised 10/15/07

(1.) Vastex, hereinafter referred to as “seller” warrants only to its original “purchaser”, who holds a copy of the original invoice and is the original end user of the equipment in question, its new equipment against defects in materials or workmanship on a pro-rated basis. Warranty period begins from date of shipment to the buyer and will only apply to customers paid in full. Warranty periods are as follows: one (1) year for E-1000, and V-1000, three (3) years for all other equipment (including F-Flash), ten (10) years for infrared heaters (excluding F-Flash) installed by Vastex in a new dryer, three (3) years for replacement infrared heaters, and one (1) year for replacement parts. Rubber blankets, light bulbs and glass on exposure units are particularly subject to wear while in use. Wear is not covered by this warranty but as stated above only manufacturers defects are covered. All sales made through Vastex dealers must be certified by that dealer before a warranty replacement is issued.

**(2.) This warranty is expressly contingent upon the buyer delivering to seller, at the address below, with all transportation charges prepaid, the part or parts claimed to be defective within the above mentioned warranty periods stated in paragraph one. The defective part or parts will be repaired or replaced at the discretion of Vastex International, Inc. If the equipment in question is less than one (1) year old, it will be shipped to the customer at no charge, with an RGA issued by Vastex for the defective part. The defective part must be shipped back to Vastex freight prepaid within 30 days or the account will be billed. If the equipment is more than a year old, the part will be shipped after we receive the defective part. If it's necessary to expedite the movement of parts and to minimize down time to the buyer, the replacement part shall be supplied on a C.O.D. basis. If testing and analysis of said part by the seller or its supplier discloses that said part is defective, the cost of said part will be refunded to the buyer on a prorated basis.**

(3.) Except as otherwise provided herein, the equipment is being sold “as-is”. Final determination of the suitability of the equipment for the use contemplated by the buyer, is the sole responsibility of buyer, and seller shall have no responsibility in connection with the suitability.

(4.) All warranties implied by law, including the implied warranties of merchantability and fitness are hereby limited to workmanship and defective parts to a warranty period stated in paragraph one. The express warranty and remedies contained herein and such implied limited warranties are made solely to the sole warranties and remedies and are in lieu of all other warranties, guarantees, agreements, and other liabilities, whether express or implied, and all other remedies for breach of warranty or any other liability of seller, in no event shall seller be liable for consequential damages.

No person, agent, distributor, or service representative is authorized to change, modify or extend the terms hereof in any manner whatsoever.

These terms and conditions are an essential part of the transaction between the parties and constitute the entire agreement between them with respect to the same.

Some states do not allow limitation on how long an implied warranty lasts of the exclusion or limitation of incidental, or consequential damages, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Infrared heaters are the only replacement parts covered for a period of (3) years from date of shipment and contingent to receipt of payment in full.

Electrical components can not be returned once installed unless proven defective.  
Please refer to doc. 01-01-006 for warranty implementation help.  
Please refer to doc. 01-00-015 for specific terms and conditions of sale and the limited warranty.  
Please refer to doc. 01-00-017 for V-2000HD printer warranty.

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# VASTEX WARRANTY IMPLEMENTATION SHEET

Please read this document in order to fully understand the warranty.

Doc.# 01-00-006

Your new Vastex equipment is protected against \*manufacturers' defects by our warranty, completely explained in doc# 01-00-017 for the V2000-HD series manual printer and in doc# 01-00-005 for all other Vastex manufactured equipment. Please refer to these documents for the \*\*warranty term and specific concerns about the warranty. The following are some important facts and requirements for the proper implementation of the warranty.

1.0 Everything is covered!

2.0 \*\*Warranty Term is defined as: Ship date from VASTEX to the date the item in question is returned to VASTEX for inspection and repair.

3.0 \*Manufacturers defects are defined as: Parts determined to be defective in workmanship which will lead up to a premature failure. The determination will be made only by the manufacturer of the item in question.

4.0 To take advantage of the warranty the following steps must be taken:

- 4.1 The equipment must be paid for in full.
- 4.2 The item in question must be shipped to VASTEX for evaluation with all shipping costs incurred by the buyer.
- 4.3 If the item is deemed as a manufacturer's defect it will be repaired or replaced within 2 business days from the time received. The shipping cost back to the customer located in the continental United States will be paid by VASTEX if a warranty item.
- 4.4 **If the item in question must be replaced immediately and is more than a year old, it will have to be purchased at list price and will be shipped COD. A pro-rated credit will be given promptly if the returned item is a valid manufacturer's defect.**
- 4.5 If the equipment was shipped less than a year before the date of the service call and a technician confirms the part needed for repair, the replacement will be shipped before the replacement is shipped back. An RGA will be issued and must accompany the old part to VASTEX within 30 days or the account will be billed.

5.0 Important facts about the condition of shipped equipment:

- 5.1 Dryers are partially assembled with the belts tracked and the machine run at full temperature for a min. of 1 ½ hours.
- 5.2 Printers are partially assembled, inspected, and adjusted for all heads down prior to partial disassembly and packing.
- 5.3 Exposing units are fully assembled and tested with the maximum screen size for vacuum integrity, timer operation and light output.

6.0 This document is in addition to the standard warranty and only helps the customer understand how to take advantage of the warranty. In no way does this document override the standard warranty or the terms and conditions of sale and the limited warranty doc# 01-00-015.

Please see doc# 01-00-015 for specific terms and conditions of sale and the limited warranty

VASTEX  
INTERNATIONAL

1032 N. IRVING ST.  
ALLENTOWN PA. 18109 USA



# Vastex International, Inc.

## TERMS AND CONDITIONS OF SALE AND LIMITED WARRANTY Doc.#01-00-015

1. Buyer's order will constitute an offer in accordance with the terms hereof and such offer, upon acknowledgment of Seller, will constitute the agreement between Buyer and Seller. Buyer's order after such acknowledgment by Seller will not be subject to cancellation, change or reduction in amount, or suspension by Buyer of deliveries, unless prior to such action Buyer has obtained Seller's written consent. Notwithstanding anything to the contrary in Buyer's Purchase Order or other communications, the parties agree to be bound by these Terms and Conditions. Acceptance of the product by the Buyer shall be deemed to constitute unconditional acceptance of these Terms and Conditions.
2. Any of these terms, conditions and provisions of Buyer's order which are inconsistent with Seller's acknowledgment and these Terms and Conditions of Sale shall not be binding on the Seller and shall be considered not applicable to any sale so made. No waiver, alteration or modification of any of the provisions on either side of the document shall be binding upon Seller unless agreed to in writing by Seller.
3. (a) All prices are F.O.B. Seller's Plant and method of delivery and routing shall be at Seller's discretion, unless specifically otherwise stated herein. Notwithstanding any agreement to pay freight, delivery of products purchased hereunder to a common carrier or licensed trucker shall constitute delivery to Buyer and be determinative of the date and time of shipment and all risk of loss or damage in transit shall be borne by Buyer. If the Buyer fails to accept the goods from the common carrier or licensed trucker, the Seller shall be entitled to claim payment from the Buyer. Seller shall arrange for storage, the risk and the cost, including insurance costs, to be borne by the Buyer (and Buyer agrees to pay such amounts upon demand) except if the failure to accept delivery is due to any of the exceptions noted in Paragraph 4.  
  
(b) Terms of payment shall be as stated on invoice.
4. It is understood that deliveries will be made in accordance with Seller's regular production schedule. Every reasonable effort will be made to meet the Buyer's required delivery dates but Seller will not be liable for damages or be deemed to be in default by reason of any failure to deliver or delay in delivery due to any preference, priority, allocation or allotment order issued by the Government, whether Federal, State or local, or causes beyond its control including but not limited to, Acts of God or a public enemy, acts of Government, fires, floods, epidemics, quarantine restrictions, strikes, lockouts, freight embargoes, severe weather, unavailability of materials or shipping space, delays of carriers or suppliers or delays of any subcontractors. Should delay in delivery be caused by any of the circumstances mentioned in this paragraph, such extension of the delivery period shall be granted as is reasonable under the circumstances of the case. Should delay be caused by an event not specifically mentioned in this paragraph, damages will be limited to cancellation of the purchase order without penalty, and refund of any monies deposited or prepaid on the purchase order with no liability for any consequential or incidental damages.
5. Seller reserves the right to increase the prices prior to Seller's acceptance of order and/or after expiration of any price quoted by Seller.
6. Unless otherwise stated in writing, Seller's prices do not include sales, excise, value-added or other taxes. Consequently, in addition to the price specified herein, the amount of any present or future sales, use, excise, value-added or other tax applicable to the manufacture, sale, purchase or use of the products hereunder shall be paid by Buyer, or in lieu thereof, Buyer shall provide Seller with a valid tax exemption certificate acceptable to the taxing authorities.
7. Seller reserves the right, at any time, to revoke any credit extended to Buyer because of Buyer's failure to pay for any products when due or for any other reason deemed good and sufficient by Seller and in such event, all subsequent shipments shall be paid for prior to at delivery at Seller's option.
8. (a) SELLER'S LIABILITY SHALL BE LIMITED TO SELLER'S STATED SELLING PRICE PER UNIT OF ANY DEFECTIVE GOODS AND SHALL IN NO EVENT INCLUDE BUYER'S MANUFACTURING COSTS, LOST PROFITS, GOODWILL, OR ANY OTHER SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, ARISING OUT OF THE AGREEMENT, THIS CONTRACT, THE SALE OF THE PRODUCTS TO THE BUYER OR THE USE OR THE PERFORMANCE OF THE PRODUCTS. Seller may at its discretion repair, replace or give the Buyer credit (pro-rated) for such defective products.  
  
(b) Notwithstanding anything herein to the contrary, Seller shall have no liability for alleged defects with the products which are not specified in written notice from the Buyer to the Seller within thirty-six (36) months from the date of shipment of machines. Seller shall pass to Buyer any warranty received by Seller from the manufacturer of Limited Life Components, which in most cases is 12 to 18 months.  
  
(c) Seller shall have no liability under this Limited Warranty unless Buyer has paid in full for the products. Further, this Limited Warranty is expressly contingent on Buyer's delivery to Seller, all costs prepaid, the defective part(s) within thirty-six (36) months of shipment to Buyer, together with a written statement specifying the alleged defect(s). Any replacement part(s) shall be shipped to Buyer on a C.O.D. basis.  
  
(d) SELLER SPECIFICALLY EXCLUDES ALL WARRANTIES, EXPRESSED, IMPLIED OR OTHERWISE, EXCEPT AS STATED EXPLICITLY IN THESE TERMS AND CONDITIONS OF SALE. SELLER DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
9. The remedies herein reserved by Seller shall be cumulative and in addition to any other legal remedies. No waiver of a breach of any portion of this contract shall constitute a waiver of continuing or future breach of such provision or of any other provisions hereof.
10. These Terms and Conditions constitute the entire agreement of the parties. No amendments, changes, revisions or discharges hereof in whole or in part shall have any force or effect unless set forth in writing and signed by the parties hereto. This contract shall not be assignable by Buyer voluntarily by operation of law or otherwise without Seller's written consent.
11. This contract shall be governed and shall be construed according to the domestic laws of the Commonwealth of Pennsylvania.
12. Anything herein to the contrary notwithstanding, any action for alleged breach by Seller of the contract between the parties, including but not limited to any action for breach of the warranties herein set forth, shall be barred unless commenced by Buyer within one (1) year from the date such cause of action accrued.
13. This agreement shall inure to the benefit of and be binding upon the parties hereto, their respective successors and permitted assigns.
14. **All notices required by this contract to be given by either party shall be sent in writing or by facsimile and shall be addressed to the last known address of such other party. Notices shall be deemed to have been received on the fifth business day following deposit in the mail.**