

# TACHIT®

## INSTRUCTION MANUAL FOR MODEL #3510 AND #3510A HAND HELD TWIST TIE MACHINES



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Clements Industries Japan, Clements Industries Korea

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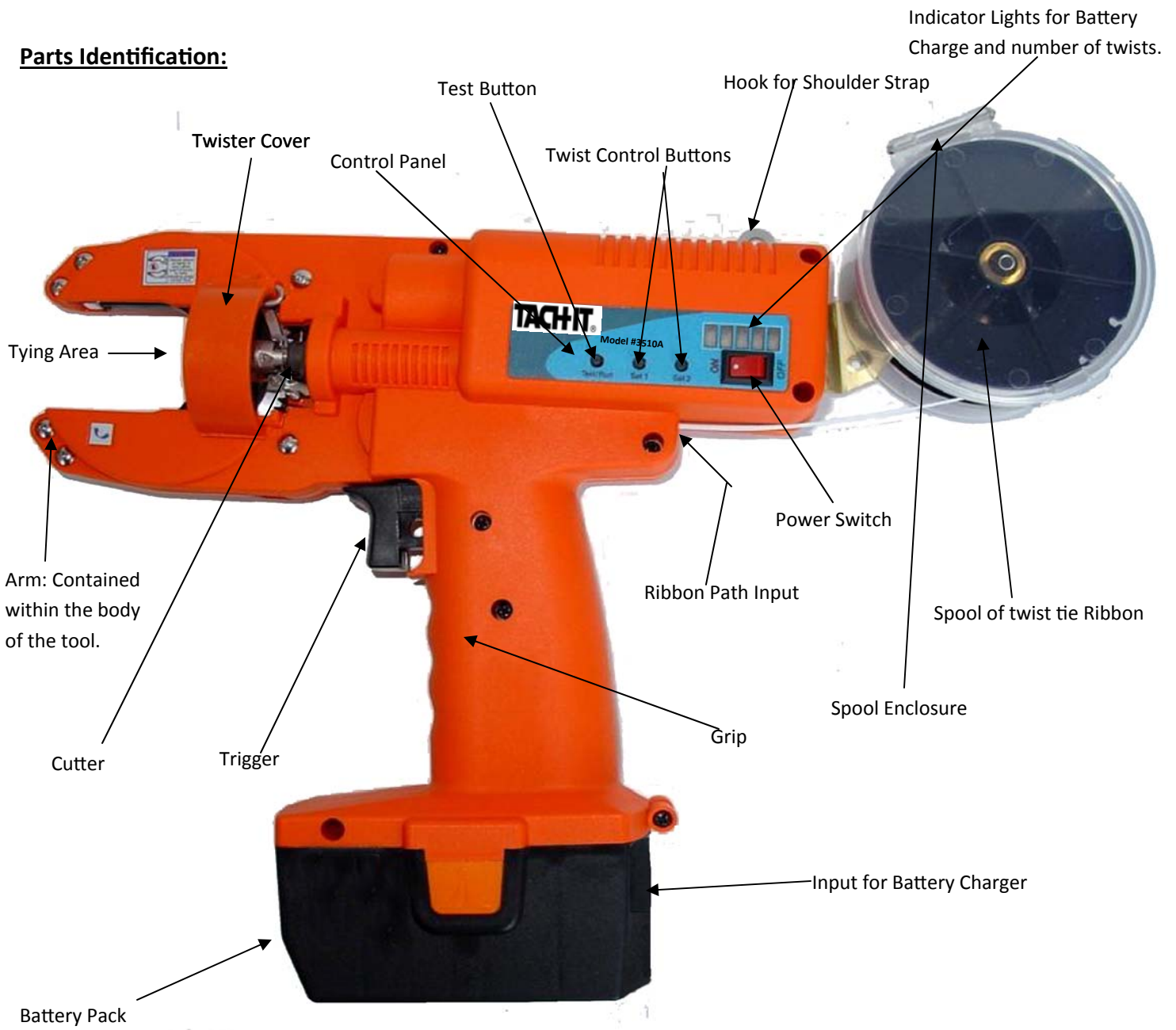
## **Overview of Product:**

Consisting of 2 different models; the #3510 for the packaging industry and the #3510A for the agricultural industry (the 3510A does not tension as tight to avoid damage to living plants), these units can be distinguished by color. The #3510 has a black case and the #3510A has an orange case. Designed to be lightweight, fully portable and easy to use, these units allow for high productivity application of a twist tie closure for applications where the product can not be brought to a stationary machine but a machine needs to be brought to a product. Powered by a handle mounted clip in changeable rechargeable battery pack and having a self contained spool of twist tie ribbon allows for portability of the machine. To use the operator places the product to be tied into the opening located at the front of the tool ensuring that it fits completely within the opening. Then the operator pulls the trigger and an arm brings the twist tie ribbon around the product. Upon completion of travel of the arm, the twist tie ribbon is then retracted into the tool so that only the necessary amount of twist tie ribbon is used for the closure and then the twist tie ribbon is cut and twisted (the number of twists is adjustable). The operator then removed the product from the tool and the tool is now ready to complete the next cycle.

## **Caution:**

- 1) This manual must be ready and understood by all users prior to use. Manual must also be kept in close proximity to where the machine is being used for immediate reference if needed.
- 2) Do not use the Model #3510 or #3510A in any wet area or in rain or where there may be contact with moisture.
- 3) Turn the power off and remove the battery pack when the unit is not in use, during any adjustment or repair on the unit or while replacing the spool of twist tie material.
- 4) Keep hands, fingers, hair, jewelry, clothing and any debris of any kind away from the tying area during use of the machine.
- 5) Only use the supplied battery pack and charger with this machine. Use of any other battery pack or charger may damage the machine, battery pack or charger, will void and make null any warranties expressed or implied and can be very dangerous as it may overheat the battery and can cause fire or explosion of the battery pack. Should a new battery pack or charger be needed contact the company that the unit was purchased through or your local Tach-It distributor.
- 6) Never impact either the machine or the battery pack and should an impact occur examine the machine and battery pack and if there is any visible damage to the machine or battery pack return this to the factory for evaluation and repair.
- 7) Use only twist tie materials meeting Tach-It strict standards and specifications on these machines. Any use of twist tie material not meeting Tach-It specifications will make any warranty either expressed or implied null and void.
- 8) The Model #3510 and #3510A are designed for twist tying of products. Any use of the machine for other than it's intended purpose will make all warranties either expressed or implied null and void and can cause injury to the operator and the machine.
- 9) Any repair to this Machine should be done by either Ben Clements and Sons, Inc. or an authorized repair department.

**Parts Identification:**



Battery Pack



Charger

**Specifications:**

**Model #3510:**

<b>Tach-It Model #</b>	<b>#3510 for Packaging Applications</b>
<b>Size and Weight:</b>	<b>Length—8" (200mm), Width—2" (50mm) Height—10" (250mm), 1.9 Lbs (0.85 kg)</b>
<b>Tying Capacity</b>	<b>1 3/8" (35mm)</b>
<b>Motor Voltage</b>	<b>7.6 ~ 12 Volt</b>
<b>Battery Voltage</b>	<b>12.4 Volts</b>
<b>Battery Current</b>	<b>2.0 Amp</b>
<b>Battery Capacity</b>	<b>2,000m/Ah</b>
<b>Battery Life</b>	<b>Approximately 4500 cycles per charge</b>

**Model #3510A:**

<b>Tach-It Model #</b>	<b>#3510A for Agricultural Applications</b>
<b>Size and Weight:</b>	<b>Length—8" (200mm), Width—2" (50mm) Height—10" (250mm), 1.9 Lbs (0.85 kg)</b>
<b>Tying Capacity</b>	<b>1 3/8" (35mm)</b>
<b>Motor Voltage</b>	<b>7.6 ~ 12 Volt</b>
<b>Battery Voltage</b>	<b>12.4 Volts</b>
<b>Battery Current</b>	<b>2.0 Amp</b>
<b>Battery Capacity</b>	<b>2,000m/Ah</b>
<b>Battery Life</b>	<b>Approximately 4500 cycles per charge</b>

**Charger:**

<b>Charger Model # for both #3510 and #3510A</b>	<b>3510-BC</b>
<b>Voltage:</b>	<b>12.4 Volts</b>
<b>Current:</b>	<b>1.5 Amps</b>
<b>Input Voltage</b>	<b>100—240 VAC 50-60 Hz</b>
<b>Charging Time</b>	<b>1.5 Hours</b>

## Accessories:

In order to make sure that the user of the Tach-It Model #3510 and #3510A have everything they need to get started the machine comes in a kit that includes the following:

- ◆ Model #3510 or #3510A Hand-Held Twist Tie Machine
- ◆ Sample rolls of Twist Tie Material for use on the machines
- ◆ 2 Battery Packs
- ◆ Battery Charger
- ◆ Shoulder Strap
- ◆ Protective Enclosure for spools of Twist Tie Ribbon
- ◆ Assorted Tools for use in maintenance and repair of the Model #3510 or #3510A
- ◆ Hard Side Carry Case with inserts to contain all of the above.



### **Initial Setup and Charging the Battery of the Model #3510 or #3510A:**

Upon receipt of the Model #3510 or #3510A, remove the carrying case from the carton and also remove any packaging materials.

- 1) Open the case and confirm that everything is in the carrying case that should be per the previous section. If anything is missing please contact the company that sold the machine.
- 2) Within the case, locate the Battery Charger and also the Power Input Cable. This cable will fit into the Wall outlet and then into one side of the Battery Charger. Insert the Power Input Cable into the Battery Charger and then insert it into the wall outlet. An adaptor may have been enclosed with the unit depending on the country of use and if the wall outlet requires a different configuration than the Power Input Cable has.
- 3) Remove the Battery Pack from the Carrying Case. This can be the Battery Pack attached to the machine or the separate one. Locate the hole located in the rear of the Battery Pack.
- 4) Locate the cable coming from the Battery Charger that has the round connection and insert this into the Battery Pack.
- 5) While Charging the indicator light on the Battery Charger will be ready. When fully charged the indicator light on the Battery Charger will be green.

### **Installing and Removing the Battery Pack into the Model #3510 or #3510A:**

To remove a Battery Pack installed into the Model #3510 and #3510A:

- 1) Locate the Orange Buttons:
- 2) Depress the Buttons and slide the Battery Pack from the Grip of the machine.

To Install a Battery Pack into the Model #3510 and #3510A

- 1) Confirm that no Battery Pack is currently installed.
- 2) While holding the Machine in one hand the Battery Pack in the other, orient the Battery Pack so that it will fit into the shape cut out located at the base of the Grip of the machine. The input to charge the Battery Pack will be located to the rear of the machine.
- 3) Slide the Battery Pack into the Grip until it clicks into place.

### **Cautions regarding the Battery Pack and Battery Charger:**

- 1) In order to protect the operator and the machine only use Genuine Model #3510 and #3510A Battery Packs and Battery Chargers.
- 2) Never use either a DC Power Supply or Generator Power to charge the Battery Pack
- 3) Only use the Battery Charger to charge the Battery Pack in a dry, well ventilated area that is not in direct sunlight. Do not charge the Battery Pack in damp, wet or rainy conditions. Keep Battery Pack and Battery Charger away from heat, fire and flames.
- 4) Do not completely discharge the Lithium Polymer Battery as it can damage the Battery Pack and cause overheating during the Charging process.



## Loading and Replacement of the Twist Tie Ribbon in the Model #3510 or #3510A:

### Loading of the spool of Twist Tie Ribbon:

- 1) Make sure that the Power to the tool is off and it is highly recommended that the Battery Pack be removed prior to proceeding. See Figure 1
- 2) Locate the Spool Enclosure located at the rear of the Machine and open it up. The cover of the Spool Enclosure opens from bottom and swings upward. See Figure 2
- 3) Take the Spool of Twist Tie Ribbon and place it into the Spool Enclosure—**Very Important:** The Spool must be installed so that the leading edge of the Twist Tie Ribbon comes through the opening as shown in Figure 3 and when pulled the spool rotates in a clockwise direction. If placed in the wrong way, the Twist Tie Ribbon will rub against the Spool Enclosure causing drag on the Twist Tie Ribbon which could result in missed ties or damage to the Machine.
- 4) Pull about 6 inches of Twist Tie Ribbon from the spool and straighten it out. If any portion of this Twist Tie Ribbon is twisted or bent, use the enclosed cutter and cut away that portion. See Figure 4.
- 5) Insert the straightened Twist Tie Ribbon into the Ribbon Path Input and push it forward for about 4 inches until there is some resistance. Do not push any further once the resistance is felt. See Figure 5.
- 6) The Twist Tie Ribbon is now loaded, install the Battery Pack and turn power on.



Figure 1:



Figure 2:



Figure 3:



Figure 4:



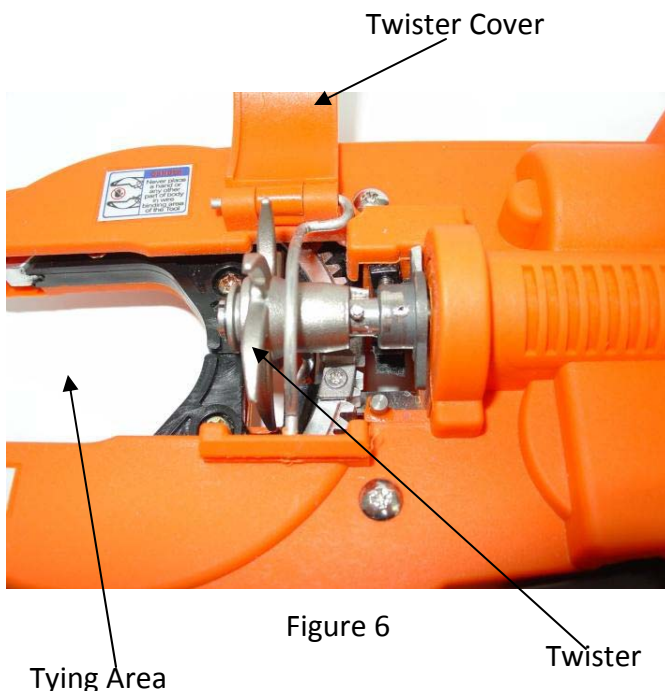
Figure 5:



### Replacement of the Spool of Twist Tie Ribbon:

It is very important that the Spool of Twist Tie Ribbon is removed with a few inches of Twist Tie Ribbon left on the spool and before the very end of the Twist Tie Ribbon enters the Machine. If the very end of the Twist Tie Ribbon enters the Machine it may not be long enough to engage the feed rollers within the machine and may become entangled in the mechanism.

- 1) When there is about 12 inches of Twist Tie Ribbon left on the Spool, locate a new Spool of Twist Tie Ribbon and follow the instructions below.
- 2) Turn the power on the Machine off and remove the Battery Pack.
- 3) Cut the Twist Tie Ribbon with the enclosed Cutter making sure that there is no tape or anything at the cut end of the Twist Tie Ribbon that can become caught in the mechanism of the Machine.
- 4) Do not pull the Twist Tie Ribbon out of the Ribbon Path Input as this may damage the internal feed mechanism of the machine.
- 5) Depress the Trigger 2 or 3 times and then Twist Tie Ribbon will protrude through the Twister located in the Tying Area at the front of the Machine.
- 6) Using your fingers or the enclosed long nose pliers carefully remove the protruding piece of Twist Tie Ribbon by pulling it forward into the Tying Area. See Figure 6 below: If necessary you can raise the Twister Cover for easier access in removing the Twist Tie Ribbon. Make sure to close the Twister Cover after the Twist Tie Ribbon has been removed.
- 7) Open the Spool Enclosure and discard the empty Spool of Twist Tie Ribbon.
- 8) Following the instructions on Page 8 of this manual to load a new Spool of Twist Tie Ribbon into the Machine.



### **Use of the Tach-It Model #3510 and #3510A:**

**Please Note:** The Model #3510 and #3510A has a revolving Arm that rotates in a 360 degree circle with each cycle of the Machine. The arm which is located within the body of the Machine between cycles. When the Trigger is depressed at the beginning of a cycle the Arm comes from the bottom of the Machine at the end of the Tying Area encircling the product to be tied and then continues to travel through the upper part of the Machine until it returns to its home position within the Machine. It is very important that nothing impedes the travel of the Arm as this can cause damage to the product or machine or injury to the operator.

- 1) Install a charged Battery Pack into the Machine and then turn the machine on by pressing the Power Switch located on the front of the Machine.
- 2) Gripping the Machine tightly bring it to the product to be tied.
- 3) Place the product to be tied completely within the Tying Area making sure that the area at the very front of the Machine is clear so that the Arm can travel without being impeded.
- 4) Depress and release the Trigger. If the Trigger is maintained in the depressed position, after the cycle is complete the Machine will continue to rotate the Twister.
- 5) Once the cycle is complete remove the product that was tied from the Tying Area.
- 6) The Machine is now ready for the next cycle.

**Please Note—If a tie does not complete the circuit of for any reason is left with the Twister or Tying Area it must be removed prior to the next cycle or it can get tangled and or damage the machine.**

### **Indicator Lights:**

There are 2 rows of Indicator Lights located on the Control Panel of the Model #3510 and #3510A.

The lower level of Green Indicator Lights show the power level within the Battery Pack

The Upper Red Indicator Light show the number of twists of the Twist Tie Ribbon that the Machine is set to do.

### **Adjusting the Tightness of the Twist Tie Closure:**

The tightness of the Twist Tie Closure can be adjusted on the Model #3510 and #3510A. This is easy to do:

- 1) Locate the Control Panel on the Machine and then locate the Twist Control Buttons Set 1 and Set 2.
- 2) By using the Set 1 and Set 2 Buttons the operator can adjust how many twists the Machine gives the Twist Tie Ribbon. Depressing the Set 1 Button will increase the number of twists and the Upper Red Indicator Light will travel to the Left side of the display. Using the Set 2 Button will reduce the number of twists and the Red Indicator Light will travel to the right.

Please note that if the number of twists is too tight for the relative product the Twist Tie Ribbon could damage the product. Also, depending on the product the Machine could over twist the Twist Tie Ribbon and actual damage or break the tie ultimately reducing the strength of the closure.

## **Troubleshooting:**

**The Arm stops within the Tying Area: The arm revolves around the Tying Area and brings the Twist Tie around the product. If it should stop mid-cycle enclosing the Tying Area perform the following:**

- 1) Turn the Power off and remove the Battery Pack
- 2) Within the Carrying Case is an Awl with a green handle. Locate the Cutter Hole as shown in Figure 7 below and using the Awl for leverage cut the Twist Tie Ribbon.
- 3) Remove the cut piece of Twist Tie Ribbon and if the Twist Tie Ribbon is wound or twisted within any visible part of the Machine use a long nose pliers and carefully remove it.
- 4) Replace the Battery Pack and turn the Power on.
- 5) Push the Test Switch located on the Control Panel, See Figure 8 to rotate the Arm back to normal position.



Figure 7



Figure 8

## **Maintenance and Storage:**

When not in use make sure that the Power to the Machine is off. If the Machine will not be used within a relatively short period of time such as 2-3 days remove the Battery Pack.

Clean the Machine with a soft dry cloth. Do not use any chemicals or thinners.

The Model #3510 and #3510A is designed specifically so that no lubrication is needed. Lubrication on this machine will ultimately damage it and cause problems.

If there is any mechanical issue contact your local Tach-It authorized distributor for service or contact Tach-It directly for assistance.

It is recommended that any exposed areas of the Machine be blown out with compressed air at least one time per week.

If any part of the Battery or Case should appear broken suspend use of that component or the entire machine unit that component can be repaired or replaced.

## WARRANTY AND GENERAL CONDITIONS

### TACH-IT MODEL #3510:

THE WARRANTOR, BEN CLEMENTS AND SONS, INC. AND CLEMENTS INDUSTRIES, INC. WARRANTS TO THE ORIGINAL PURCHASER-USER, THE TACH-IT MODEL #3510 TO BE FREE FROM DEFECTS IN FACTORY MATERIALS FOR THE PERIOD OF 6 MONTHS FROM THE INVOICE DATE OF ORIGINAL PURCHASE OF THE MACHINE. EXCLUDED IN THIS WARRANTY ARE THE CASE, BATTERY PACK, BATTERY CHARGER, FEED ROLLERS AND BLADES AS THESE ARE NORMAL WEAR PARTS. THE WARRANTOR AGREES TO SUPPLY AT **ITS OPTION** SIMILAR PART OR PARTS OF SAID UNIT PROVED TO THE SATISFACTION OF THE WARRANTOR TO BE DEFECTIVE AT THE TIME THE MACHINE WAS SOLD. ANY REPLACEMENTS UNDER THIS 6 MONTH WARRANTY WILL BE WITHOUT COST FOR PARTS TO SAID ORIGINAL PURCHASER-USER, EXCEPT FOR TRANSPORTATION, DUTY, CUSTOMS CLEARING AND LABOR CHARGES. BEFORE WARRANTOR SHALL SUPPLY ANY PART, THE PURCHASER-USER MUST SEND THE ALLEGEDLY DEFECTIVE PART OR PARTS TO WARRANTOR'S DESIGNATED FACTORY FREIGHT PREPAID INCLUDING DUTY AND CUSTOMS CLEARING IF APPLICABLE AND SAID PART MUST BE PROVED DEFECTIVE TO WARRANTOR'S REASONABLE SATISFACTION. **THE WARRANTOR SHALL NOT BE RESPONSIBLE FOR ANY EXPENSES INCURRED FOR SERVICE OR REPAIRS PERFORMED BY ANY PERSON OR PERSONS OTHER THAN THE WARRANTOR, UNLESS SPECIFICALLY AUTHORIZED BY THE WARRANTOR.** SERVICE CALLS OR REPAIRS OTHER THAN THOSE COVERED BY THE CONDITIONS SET FORTH IN THIS WARRANTY WILL BE MADE AT THE EXPENSE OF THE PURCHASER-USER. ANY MODIFICATION OR USE OF THIS UNIT FOR PURPOSES NOT INTENDED VOIDS ANY AND ALL RESPONSIBILITY AND LIABILITY OF THE WARRANTOR. ANY TWIST TIE MATERIAL USED ON THIS MACHINE THAT DOES NOT MEET BEN CLEMENTS AND SONS, INC. / CLEMENTS INDUSTRIES, INC. SPECIFICATIONS WILL MAKE THE WARRANTY NULL AND VOID.

#### GENERAL CONDITIONS:

BEN CLEMENTS AND SONS, INC. AND CLEMENTS INDUSTRIES, INC. SHALL NOT BE LIABLE FOR ANY DEFAULTS, DELAY, LOSS OF USE OR MARKET CAUSED BY ANY CONTINGENCY BEYOND WARRANTOR'S CONTROL INCLUDING; WAR, GOVERNMENTAL RESTRICTIONS OR RESTRAINTS, STRIKES, FIRES, VANDALISM, FLOOD, OR SHORT OR REDUCED SUPPLY OR RAW MATERIALS, ACTS OF GOD, NOR TO SPECIAL CHARGES FOR STATE SALES OR OTHER TAXES.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, AND RELEASES THE WARRANTOR FROM ALL OTHER OBLIGATIONS AND/OR LIABILITIES WHATSOEVER. IT NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR THE WARRANTOR ANY OTHER LIABILITY IN CONNECTION WITH THE UNIT HEREIN IDENTIFIED. IT APPLIES ONLY WITHIN THE BOUNDARIES OF THE UNITED STATES OF AMERICA, ITS TERRITORIES AND POSSESSIONS, AND IT IS NOT ASSIGNABLE. ORIGINAL PURCHASER-USER SHALL MEAN ONLY SUCH PERSON, PERSONS, ASSOCIATIONS, OR CORPORATIONS FOR WHOM THE UNIT IDENTIFIED HEREIN IS ORIGINALLY PURCHASED OR INSTALLED.

THIS WARRANTY DOES NOT APPLY TO DAMAGE TO SAID UNIT OCCURRED IN TRANSIT, NOR DAMAGE CAUSED BY ALTERATIONS BY UNAUTHORIZED PERSONS, FIRE, ACCIDENTS, ACTS OF GOD, MISUSE OR ABUSE, DROPPING OR IMPACT ON THE MACHINE, USE OF IMPROPER TWIST TIE RIBBON OR BY ANY OTHER CAUSES WHATSOEVER OTHER THAN DEFECTS IN FACTORY WORKMANSHIP OR MATERIAL, NOR DAMAGE OR LOSS OF ANY PRODUCTS, REFRIGERANT, PROPERTY, NOR LOSS OF INCOME OR PROFITS DUE TO MALFUNCTIONING OF SAID UNIT, NOR TO TRANSPORTATION OR SPECIAL CHARGES FOR STATE SALES OR OTHER TAXES.

**THIS WARRANTY IS NOT TRANSFERABLE.**