

# ***GBC ORCA 64 TH***

## Instruction Manual



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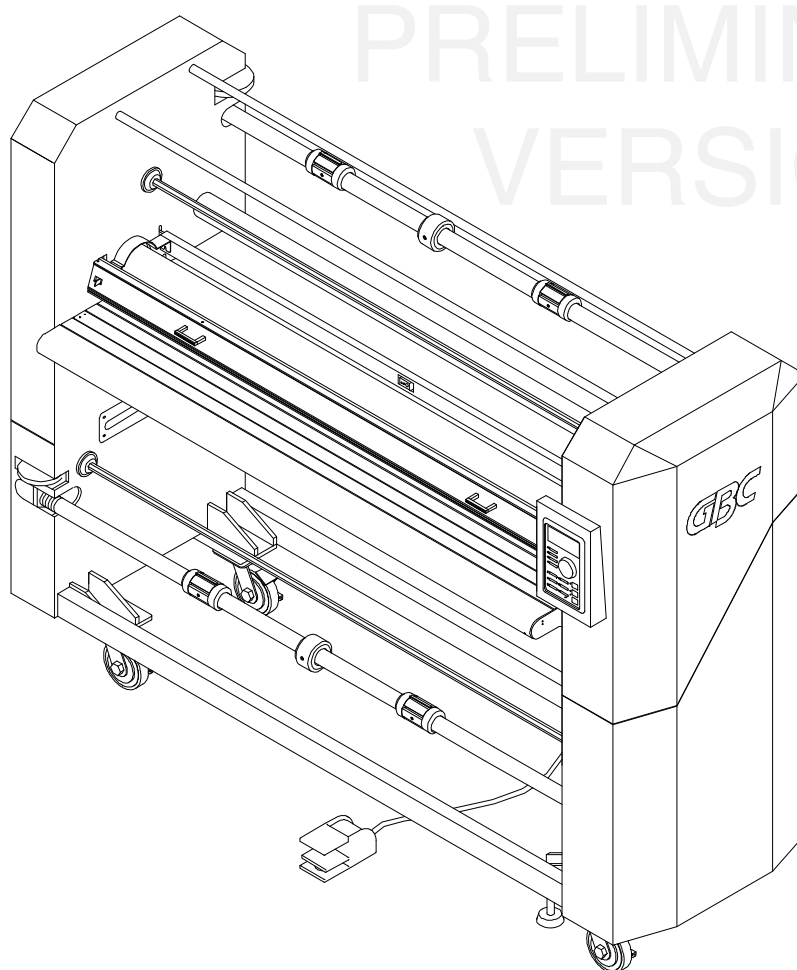
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# GBC ORCA 64 TH

## OPERATION AND

## MAINTENANCE MANUAL



Operating Instructions

I Istruzioni per l'Uso

D Bedienungsanleitungen

NL Gebruiksaanwijzing

F Mode d'Emploi

E Manual de Operación

PART NUMBER: 930-096 (PRELIMINARY)

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VERSION

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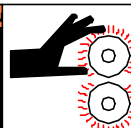
## IMPORTANT SAFETY INSTRUCTIONS

**YOUR SAFETY AS WELL AS THE SAFETY OF OTHERS IS IMPORTANT TO GBC. IN THIS INSTRUCTION MANUAL AND ON THE PRODUCT, YOU WILL FIND IMPORTANT SAFETY MESSAGES REGARDING THE PRODUCT. READ THESE MESSAGES CAREFULLY. READ ALL OF THE INSTRUCTIONS AND SAVE THESE INSTRUCTIONS FOR LATER USE.**

**! THE SAFETY ALERT SYMBOL PRECEDES EACH SAFETY MESSAGE IN THIS INSTRUCTION MANUAL. THE SYMBOL INDICATES A POTENTIAL PERSONAL SAFETY HAZARD TO YOU OR OTHERS, AS WELL AS PRODUCT OR PROPERTY DAMAGE. THE FOLLOWING WARNINGS ARE FOUND UPON THIS PRODUCT.**

⚠ ADVERTENCIA	⚠ ATTENTION		⚠ WARNING
Riesgo de choque eléctrico. No abra. Adentro no hay piezas reparables por el usuario. Mantenimiento solamente por personal calificado.	Risque de secousse électrique. Ne pas ouvrir. Pas de pièces réparables par l'utilisateur. Entretien seulement par personnel qualifié.		Electrical shock hazard. Do not open. No user serviceable parts inside. Refer servicing to qualified service personnel.

**THIS SAFETY MESSAGE MEANS THAT YOU COULD BE SERIOUSLY HURT OR KILLED IF YOU OPEN THE PRODUCT AND EXPOSE YOURSELF TO HAZARDOUS VOLTAGE.**

⚠ ADVERTENCIA	⚠ ATTENTION		⚠ CAUTION
RODILLOS CALIENTES. PUNTO DE PINCHAMIENTO. Mantener manos y ropa a distancia.	ROULEAUX CHAUDS. POINT DE PINCEMENT. Tenir mains et vêtements à l'écart.		HOT ROLLS. PINCH POINT. Keep hands and clothing away.

**THIS SAFETY MESSAGE MEANS THAT YOU COULD BE BURNED AND YOUR FINGERS AND HANDS COULD BE TRAPPED AND CRUSHED IN THE HOT ROLLERS. CLOTHING, JEWELRY AND LONG HAIR COULD BE CAUGHT IN THE ROLLERS AND PULL YOU INTO THEM.**

⚠ ADVERTENCIA	⚠ ATTENTION		⚠ CAUTION
NAVAJA FILOSA. Mantener manos y dedos a distancia.	LAME COUPANTE. Tenir mains et doigts à l'écart.		SHARP BLADE. Keep hands and clothing away.

**THIS SAFETY MESSAGE MEANS THAT YOU COULD CUT YOURSELF IF YOU ARE NOT CAREFUL.**

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**! WARNING: DO NOT ATTEMPT TO SERVICE OR REPAIR THE ORCA 64 TH LAMINATOR.**

**! WARNING: DO NOT CONNECT THE LAMINATOR TO AN ELECTRICAL SUPPLY OR ATTEMPT TO OPERATE THE LAMINATOR UNTIL YOU HAVE COMPLETELY READ THESE INSTRUCTIONS. MAINTAIN THESE INSTRUCTIONS IN A CONVENIENT LOCATION FOR FUTURE REFERENCE.**

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## IMPORTANT SAFEGUARDS



**WARNING: TO GUARD AGAINST INJURY, THE FOLLOWING SAFETY PRECAUTIONS MUST BE OBSERVED IN THE INSTALLATION AND USE OF THE LAMINATOR.**

### General

Keep hands, long hair, loose clothing, and articles such as necklaces or ties away from the front of the heat and pull rollers to avoid entanglement and entrapment.

The heat rollers can reach temperatures over 300° F. Avoid contact with the heat rollers during operation or shortly after power has been removed from the laminator.

Keep hands and fingers away from the path of the sharp film cutter blade located at the film exit.

Do not use the laminator for other than its intended purpose.

Avoid moving the laminator on uneven floor surfaces. Never tilt the laminator.

Do not defeat or remove electrical and mechanical safety equipment such as interlocks, shields and guards.

Do not insert objects unsuitable for lamination or expose the equipment to liquids.

### Electrical

The laminator should be connected only to a source of power as indicated in these instructions and on the serial plate located on the rear of the laminator. Contact an electrician should the attachment plug provided with the laminator not match the receptacles at your location.



**CAUTION: The receptacle must be located near the equipment and easily accessible.**

Do not operate the laminator with a damaged power supply cord or attachment plug, upon occurrence of a malfunction, or after the laminator has been damaged. Contact GBC's Technical Service Department or your dealer/distributor for assistance.

### Service

Perform only the routine maintenance procedures referred to in these instructions.



**WARNING: Do not attempt to service or repair the laminator.**

Disconnect the plug from the receptacle and contact GBC's Technical Department or your dealer/distributor when one or more of the following has occurred.

- The power supply cord or attachment plug is damaged.
- Liquid has been spilled into the laminator.
- The laminator is malfunctioning after being mishandled.
- The laminator does not operate as described in these instructions.

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## WARRANTY

GBC warrants the equipment to be free from defects in material and workmanship for a period of **90 days for parts and labor** from the date of installation. This warranty is the only warranty made by GBC and cannot be modified or amended.

GBC IPFG's sole and exclusive liability and the customer's sole and exclusive remedy under this warranty shall be, at GBC IPFG's option, to repair or replace any such defective part or product. These remedies are only available if GBC IPFG's examination of the product discloses to GBC IPFG's satisfaction that such defects actually exist and were not caused by misuse, neglect, attempt to repair, unauthorized alteration or modification, incorrect line voltage, fire, accident, flood or other hazard.

### Limited Warranty

This warranty specifically does not cover damage to the laminating rollers caused by knives, razor blades, other sharp objects, failure caused by adhesives or improper use of the machine. Warranty repair or replacement does not extend the warranty beyond the initial 90 day period from the date of installation.



**WARNING: Unauthorized customer alterations will void this warranty.**

**THE WARRANTY MADE HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. GBC WILL NOT BE LIABLE FOR PROPERTY DAMAGE OR PERSONAL INJURY (UNLESS PRIMARILY CAUSED BY ITS NEGLIGENCE), LOSS OF PROFIT OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE EQUIPMENT.**

### Exclusions to the Warranty

This warranty specifically does not cover;

1. Damage to the laminating rollers caused by knives, razor blades, other sharp objects or failure caused by adhesives.
2. Damage to the machine caused by lifting, tilting and/or any attempt to position the machine other than rolling on the installed castors on even surfaces.
3. Improper use of the machine.
4. Damage due from unqualified person(s) servicing the machine.

**QUALIFIED:** Any person(s) trained by GBC to perform service related work on such equipment.

**For European Union Residents Only:** This guarantee does not affect the legal rights which consumers have under applicable national legislation governing the sale of consumer goods.

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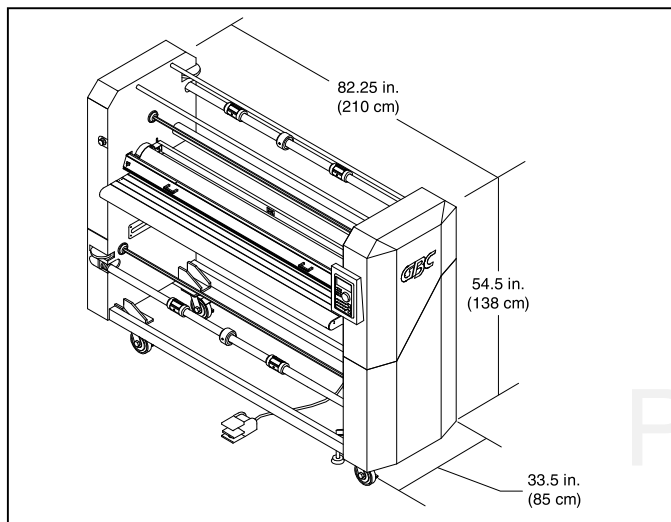


Fig. 1

## SPECIFICATIONS

**Operating Speed:**

0 fpm to 10 fpm (3 mpm)

**Maximum Film Width:**

64 in. (163 cm)

**Maximum Temperature:**

Top Main Roll: 300 °F (149 °C)

**Dimensions (W x L x H):**

Unit alone: (Figure 1)

82.25 in. x 33.5 in. x 54.5 in.

(210 cm x 85 cm x 138 cm)

Shipping:

88.5 in. x 45 in. x 75 in.

(225 cm x 114 cm x 192 cm)

**Weight:**

Unit alone: 1150 lb. (522 kg.)

Shipping: 1400 lb. (635 kg.)

**Electrical Requirements:**

Refer to the serial plate located on the rear of the laminator for the specific electrical rating applicable to the unit.

**Voltage:** 110V~60 Hz**Current:** 13A**Power:** 1400 W**Phase:** Single**Air Requirements:**

Filtered air at 3 cfm (85 lpm) with 100 psi (700 kpa) of pressure.

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## PRE-INSTALLATION

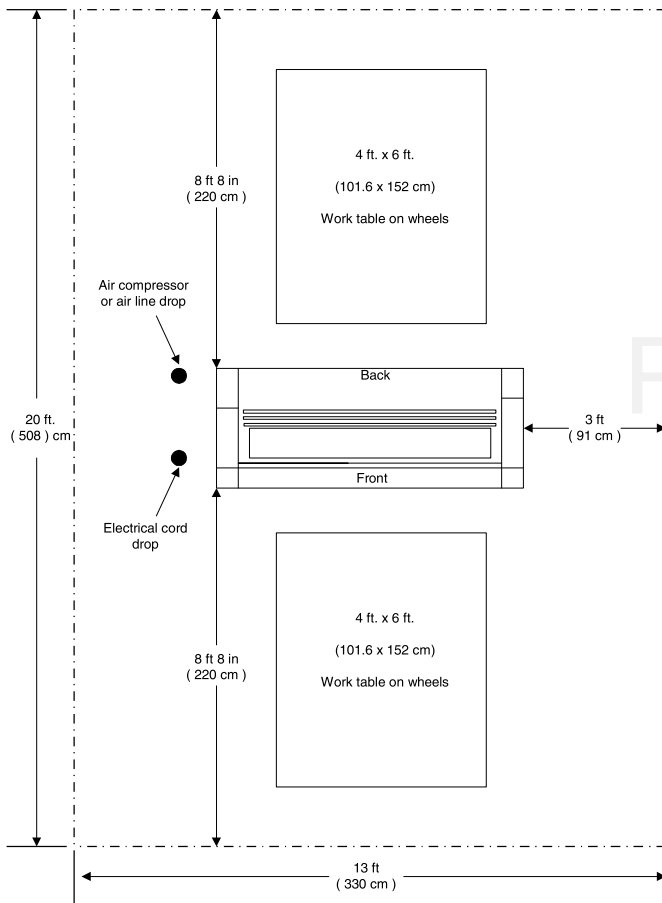


Fig. 2

Before an Orca 64 Laminator can be installed, ensure the following requirements are met;

1. Are door ways and hallways wide enough for the laminator to be moved to the installation site?
2. Is there ample room for the laminator?
  - A work area must be established that allows for operation in both the front and rear of the laminator and provides space for efficient material flow. (Figure 2).
3. Is the environment appropriate for the laminator?
  - The laminator requires a clean, dust and vapor free environment to operate properly.
  - Avoid locating the laminator near sources of heat or cold. Avoid locating the laminator in the direct path of forced, heated or cooled air.
4. Have you contacted a certified electrician to wire the receptacle and ensure that adequate power is being supplied, having the appropriate capacity, over current protection and safety lockouts available?
  - 110V at 60hz with 13 amp service.
5. Do you have appropriate air supplied to the installation site?
  - Filtered air at 3 cfm (85 lpm) with 100 psi (700 kpa) of pressure.

**! Air flow can cause uneven heating/ cooling of the rollers and result in poor output quality.**

**! The air supply must be clean and dry or the machine will be damaged.**

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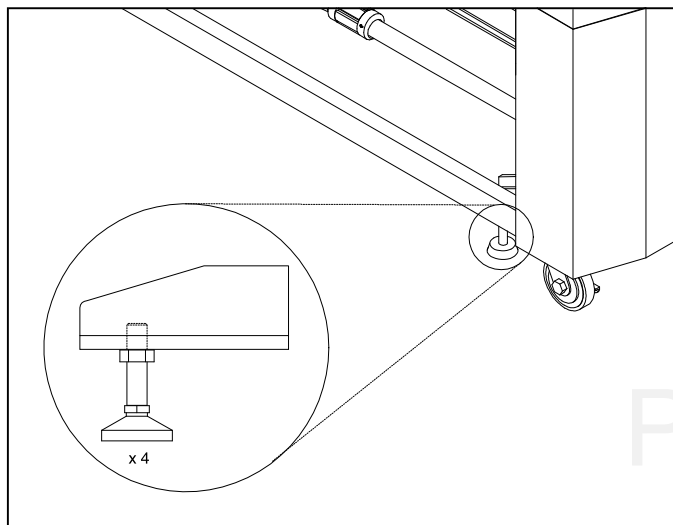


Fig. 3

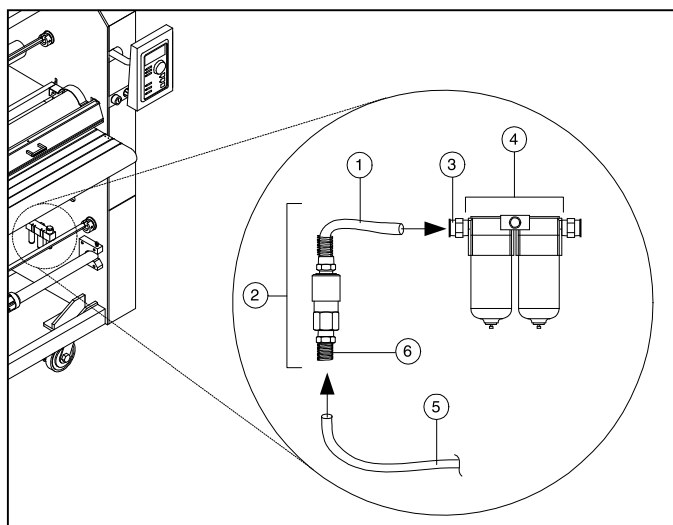


Fig. 4

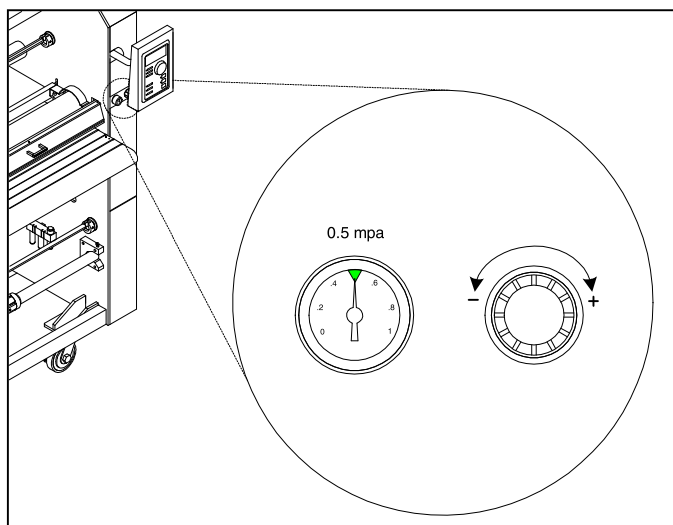


Fig. 5

## INSTALLATION

1. **Shipping damage should be brought to the immediate attention of the delivering carrier.**
2. With assistance, carefully roll the laminator into position over flat and even surfaces.
3. The laminator should be positioned to allow exiting film to flow freely to the floor or a work table. Accumulation of laminate immediately behind the laminator as it exits the equipment may cause the film to wrack around the pin rollers, resulting in a "jammed" condition.
4. Avoid locating the laminator near sources of heat or cold. Avoid locating the laminator in the direct path of forced, heated or cooled air.
5. Leveling of the machine is a customer option. If you choose not to level the laminator and encounter output problems, please level the machine and try your application again before calling for technical support. Resting the laminator on the leveling pads prevent the machine from rolling during set up, operation or servicing. (Figure 3)
6. Connect the attachment plug provided with the laminator to a suitably grounded outlet. **Avoid connecting other equipment to the same branch circuit to which the laminator is connected, as this may result in nuisance tripping of circuit breakers or blowing fuses.**
7. Connect the pneumatic tube (1) from the included coupler kit (2) to the input side (3) of the filter assembly (4). (Figure 4)
8. Connect air from your compressor (5) to the opposite end (6) of the included coupler kit. (Figure 4)
9. Set the laminator main air regulator pressure to 0.5 mpa. (Figure 5)

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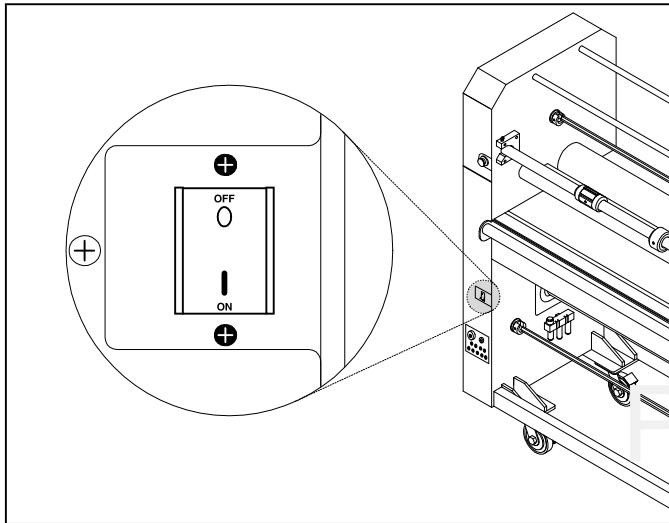


Fig. 6

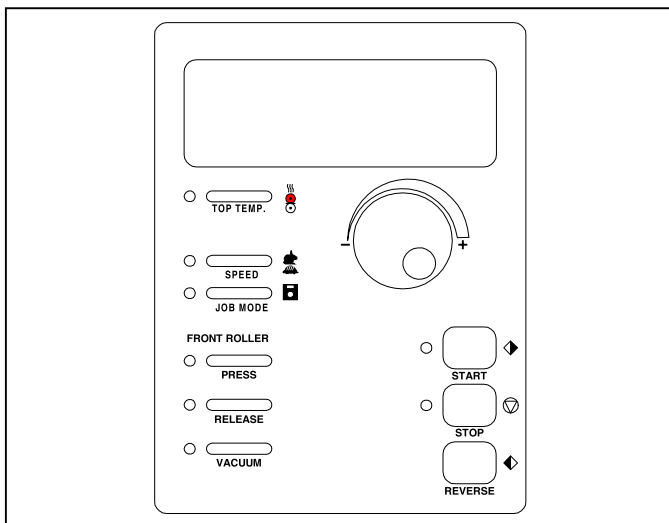


Fig. 7

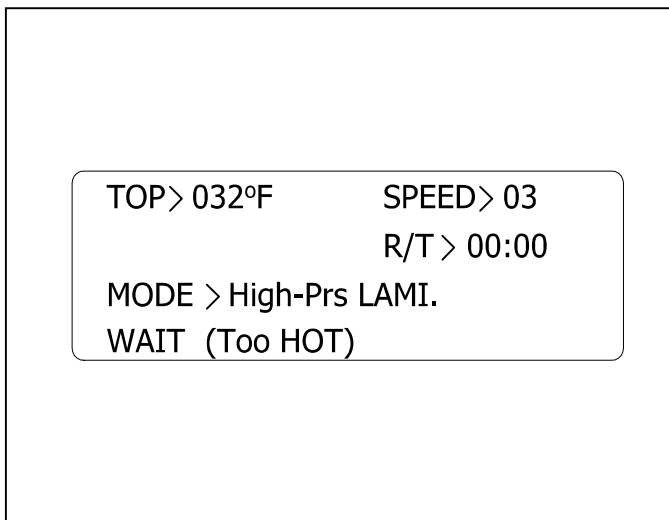


Fig. 8

## FEATURES GUIDE

**A. POWER ON/ OFF:** (Figure 6)

Located at the back left of the machine applies power to the laminator. The control panel display will illuminate when position marked "I" is pushed. The off position, marked "O", removes power from the laminator.



**B. CONTROL PANEL:** (Figure 7)**CONTROL PANEL DISPLAY:**


(Figure 8) Illuminates when the laminator is plugged in and **POWER ON/ OFF** is in the on, (I), position. Display settings for top heater, bottom heater, speed, run time, mode and ready/wait indicator.



**READY/ WAIT INDICATOR:**



"READY" appears when actual temperature is equal to +/- 5° set temperature. "WAIT (Too COLD)" appears when actual temperature is lower than the set temperature. "WAIT (Too HOT)" appears when actual temperature is higher than the set temperature.

**R/T:** Run time is monitored when the rollers are turning. This value is reset once **POWER ON/ OFF** is pressed to the **OFF (O)** position.

**MASTER DIAL** : Increases (+) or decreases (-) the numeric value for the selected setting when turned. When **JOB MODE**  is selected, scrolls through the available modes when turned.

Press and hold the **MASTER DIAL**  to display actual temperature of top and bottom heaters.

**TOP TEMP** : This means top roller temperature. When pressed, permits increasing or decreasing of the top temperature by turning the **MASTER DIAL** . Temperature range is 32°F - 320°F (0°C - 160°C).

**SPEED** : This means machine roller speed. When pressed, permits increasing or decreasing of speed by turning the **MASTER DIAL** . Speed range is 01 - 10.

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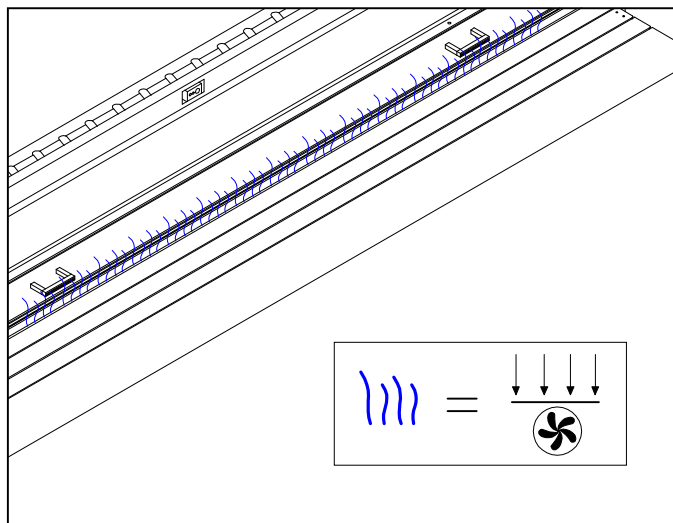





Fig. 9


**JOB MODE**  : When pressed, permits scrolling of available modes by turning the **MASTER DIAL** .

Available modes are;

- High-Prs Laminating
- Mid-Prs Laminating
- Low Prs Laminating
- 1/8 in. Mounting
- 3/16 in. Mounting
- 5/16 in. Mounting
- 3/8 in. Mounting
- 5/8 in. Mounting
- 15/16 in. Mounting
- 1 in. Mounting


Speed and top temperature may be saved for each of the job modes. When changing the value, the value is then saved by pressing **JOB MODE**  again.


**FRONT ROLLER “PRESS”**  :


This means front upper roller lower. When pressed, lowers the upper front roller with respect to the **JOB MODE**  selection.


**FRONT ROLLER “RELEASE”**  :

This means front upper roller raise. When pressed, raises the upper front roller.

**“VACUUM”** : When pressed, turns on the vacuum table fans. When pressed again, turns off the vacuum fans. (Figure 9) To adjust vacuum level, press and hold **“VACUUM”** while rotating the **MASTER DIAL**  to desired amount.

**START**  : When pressed, activates rollers for normal operation.

**STOP**  : Stops the movement of the rollers.

**REVERSE**  : When pressed, reverses roller movement to clear film jams and wrap-ups.

**STAND-BY**: Stand-by is initiated automatically after 3 hours of no motor movement is detected. In **STAND-BY** mode, the temperature of the heater is reduced to below 180 °F (82 °C). After an additional 1 hour, the laminator shuts off.

To revert to normal operating mode from **STAND-BY** mode, press **START** .

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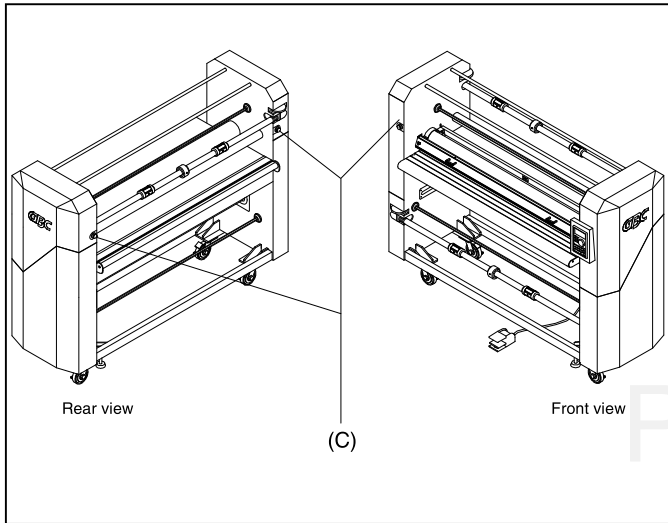


Fig. 10

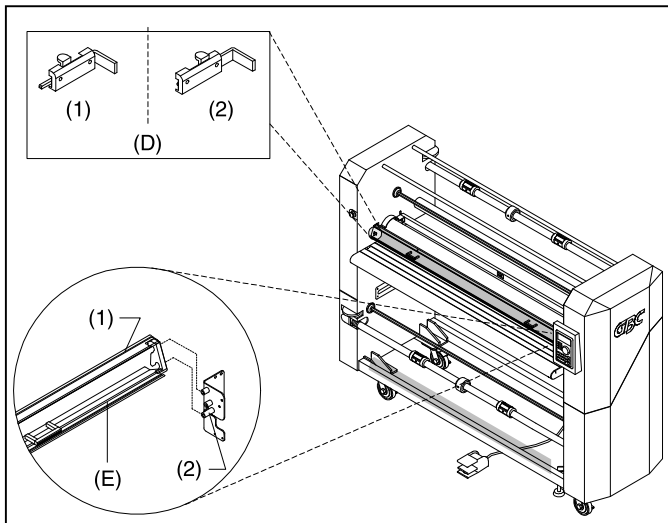


Fig. 11

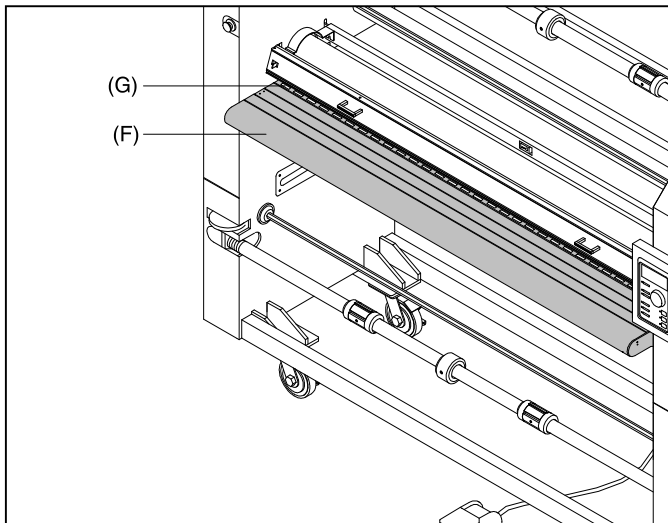


Fig. 12

**C. E-STOP:** Three emergency stop buttons exist on the laminator. One located at the right front and two at the rear. (Figure 10)

To engage, press any emergency stop push button. The heat rollers gap and power to the motor is removed. To dis-engage, pull out on the push button.

**D. SAFETY SHIELD INTERLOCK LATCH:** (Figure 11) Used to lock the safety shield into position and activate an interlock switch. The interlock latch is located on the left side of the safety shield. When pushed to the pull left (1), the safety shield is locked. When pushed to the pull right (2), the safety shield is unlocked.

**E. SAFETY SHIELD:** (Figure 11) Prevents entanglement, entrapment and injury contact with the heat rollers. **The laminator will operate only when the Safety Shield is located in the fully locked and closed position. Power to the motor is removed when the shield is in the open position or the interlock latch is unlocked.**

To remove the safety shield, unlock the safety shield interlock latch and lift the the safety shield (1) up and away from the safety shield mounting pins (2).

**F. FEED TABLE:** (Figure 12) The Feed Table is used to position items for lamination. To pivot the feed table, remove the safety shield, lift up on the feed table, pull back, then carefully lower. **The laminator will operate only when the Feed Table is properly installed.**

**G. VACUUM:** (Figure 12) The vacuum is used to assist in keeping the material flat against the feed table as it is introduced into the heat rollers. This feature can be controlled from the control panel.

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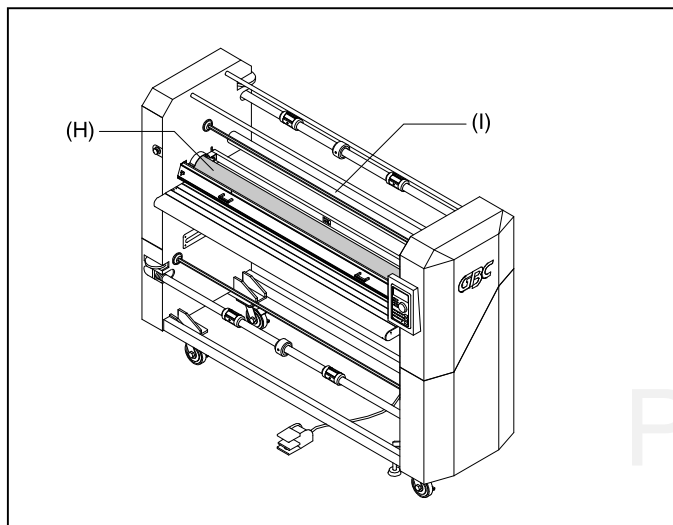


Fig. 13

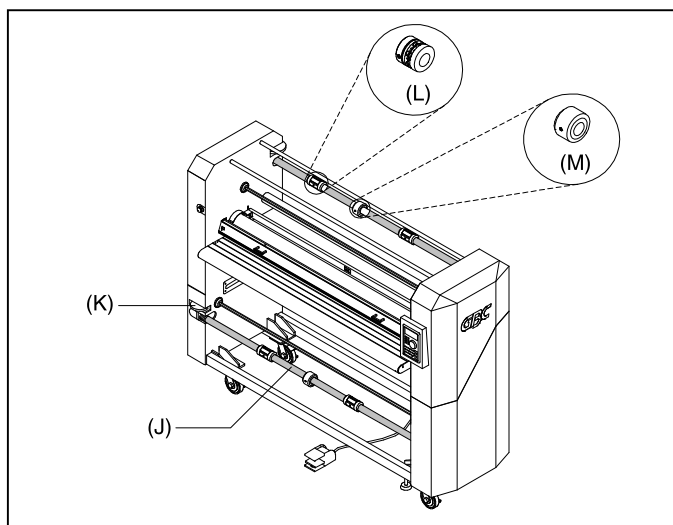


Fig. 14

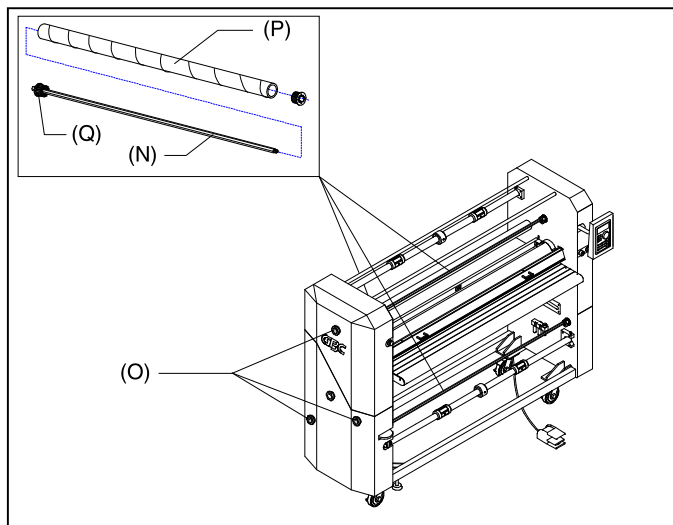


Fig. 15

**H. MAIN ROLLER:** (Figure 13) Silicone rubber coated steel tubes compress the film to the items being laminated. The top main roller can be heated by an internal heating element which assists the flow of adhesive of the top roll of film. The main rollers are motor driven for ease of loading new film.

**I. IDLER BAR:** (Figure 13) The idler bars, located near each main roller, are used to direct the film to the main roller nip. The bottom Idler Bar is movable to ease film loading.

**J. FILM SHAFT:** (Figure 14) The film shaft holds the film supply on the machine.

**K. FILM SHAFT BRAKE:** (Figure 14) Used to apply resistance to the film shaft. One for the primary / upper unwind and one for the lower unwind.

To increase film shaft brake, turn the film shaft brake dial clockwise. Counter clockwise will decrease film shaft brake tension.

**L. CORE ADAPTORS:** (Figure 14) Hold and lock the rolls of film on the shafts to prevent side to side shifting.

**M. CENTER CORE SUPPORT:** (Figure 14) Supports the center of the film cores when placed onto the unwind shafts.

**N. REWIND SHAFT:** (Figure 15) The rewind shaft holds the rewind tube on the machine.

To remove any one of the three rewind shafts, turn the outer dial opening so it aligns with the inner u-channel opening.

**O. REWIND BRAKE:** (Figure 15) Located on the left side from the front operating position.

Turn clockwise to increase rewind brake tension. Counter clockwise will decrease rewind brake tension.

**P. REWIND TUBE:** (Figure 15) The two rewind tubes located at the front of the machine are used to rewind release liners. The one located at the rear of the machine is used to rewind the finished product.

**Q. REWIND ADAPTORS:** (Figure 15) Hold and lock the rewind tube on the rewind shafts to prevent side to side shifting.

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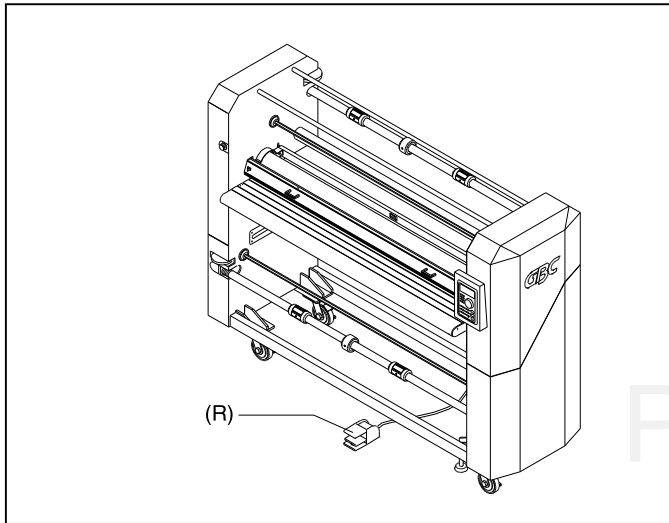


Fig. 16

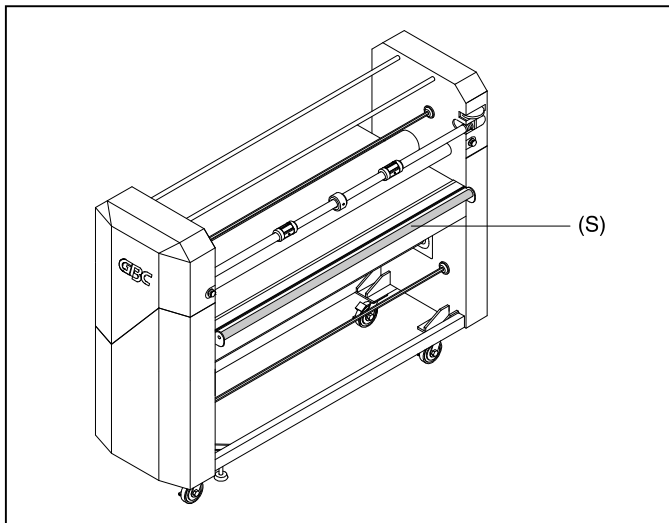


Fig. 17

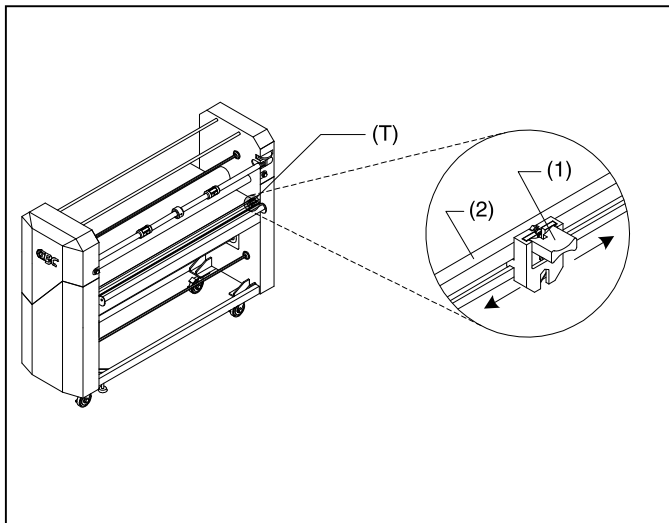


Fig. 18

**R. FOOTSWITCH:** (Figure 16)  
When in **Footswitch mode**, pressing on the footswitch will turn the rollers.

To enable **Footswitch mode**, press and hold **STOP** ⏻ for approximately 3 seconds. The machine will be and **Footswitch Enabled** will appear on the control panel display in place of **WAIT**.

When all safety is in place, the laminator will run at current speed setting. With safety out, speed is reduced to 1mpm.

**S. EXIT IDLER** (Figure 17)  
Provide a smooth rolling surface for the output web to move across during roll to roll applications.

**T. REAR SLITTER:** (Figure 18)  
Used to cut off the laminated web. To use, push down on the blade engage lever (1) and slide across the rear splitter rail (2) to the opposite side.

**U. FILM WEB:** Laminating film loaded into the machine.

**V. NIP POINT:** The point at which the top and bottom rollers come into contact. The Nip Point of the main rollers is the place at which the items for lamination are introduced into the laminator.

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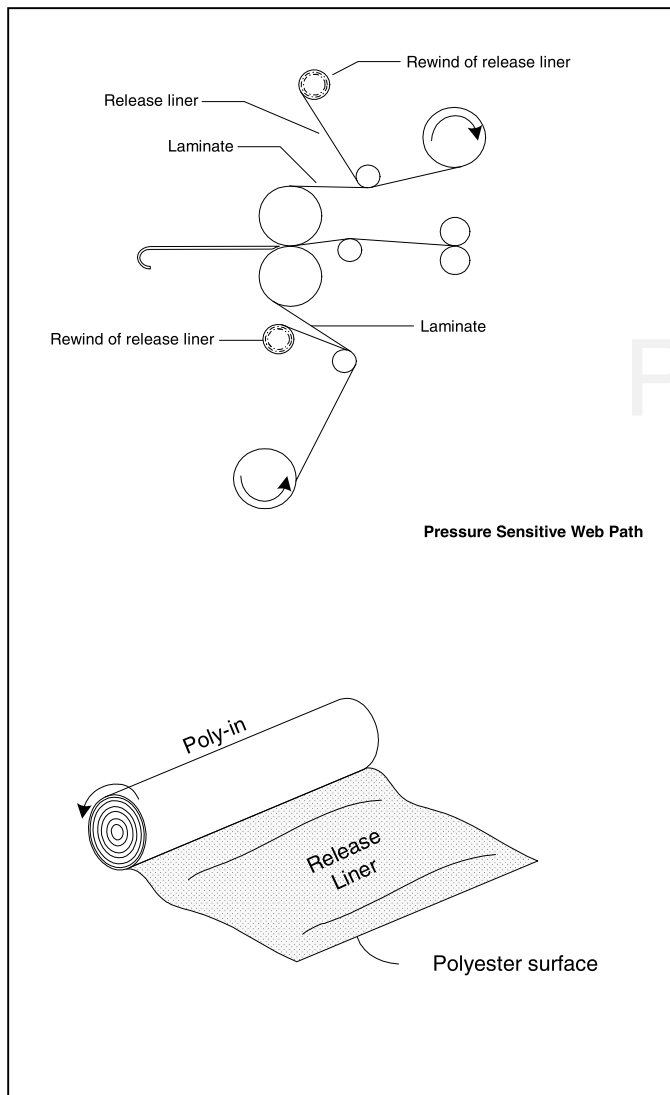


Fig. 19

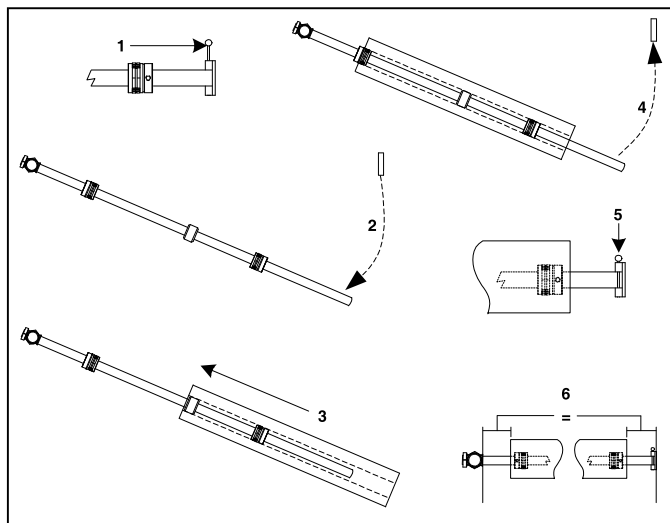


Fig. 20

## OPERATING INSTRUCTIONS

## FILM LOADING &amp; THREADING

The top and bottom rolls of laminating film must be of the same width and be present simultaneously. A small amount of adhesive will "squeeze out" during lamination. Hardened adhesive deposits can damage the main rollers. To avoid any damage, select "Low-Prs LAMI." for job mode (■), rotate the rollers at slowest speed with top heat on.

Refer to the section entitled **CARING FOR THE ORCA 64 TH LAMINATOR** for instructions regarding removal of the accumulated adhesive.

Adhesive will deposit on the rollers if:

- Only one roll is used.
- Different widths of rolls are loaded together.
- Either roll is loaded adhesive side against a main roller.
- One or both rolls of film are allowed to run completely off its core.

The release liner side of the film is on the inner side of the web (Figure 19). The shiny side must contact the main rollers. Under the release liner side of the film contains the pressure sensitive adhesive.

Always change the top and bottom supply rolls at the same time. Near the end of each roll of GBC laminating film is a label stating "Warning-End of Roll". The appearance of this label on either the top or bottom roll requires that new rolls of film be installed as soon as the item presently being laminated completely exits the rear of the laminator. Do not introduce any additional items into the laminator when the warning label is visible.

## To load a roll of film; (Figure 20)

1. Pull the clevis pin up.
2. Swing shaft outward.
3. Slide the roll of film onto the film shaft ensuring adhesive side is out.
4. Push the film shaft back into the film shaft support saddle.
5. Push the clevis pin down.
6. Center the roll of film.

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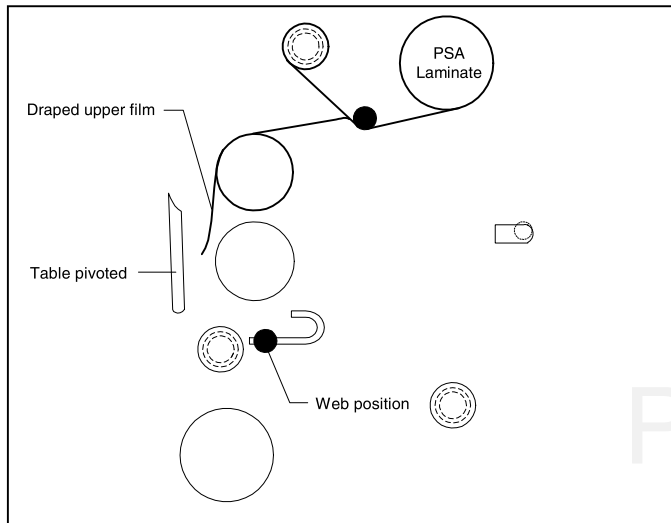


Fig. 21

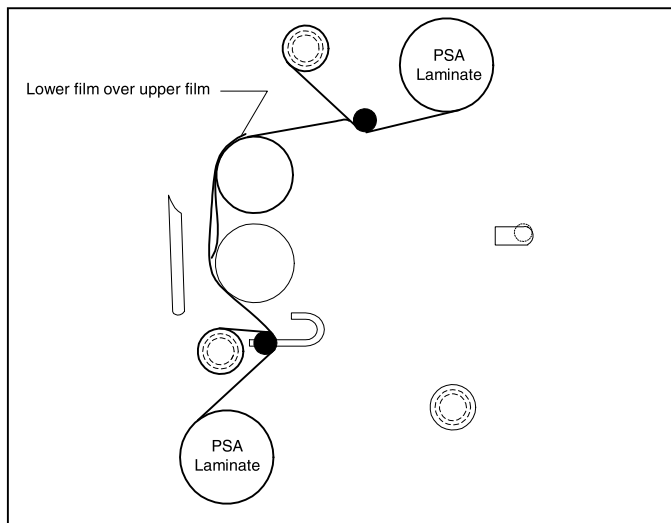


Fig. 22

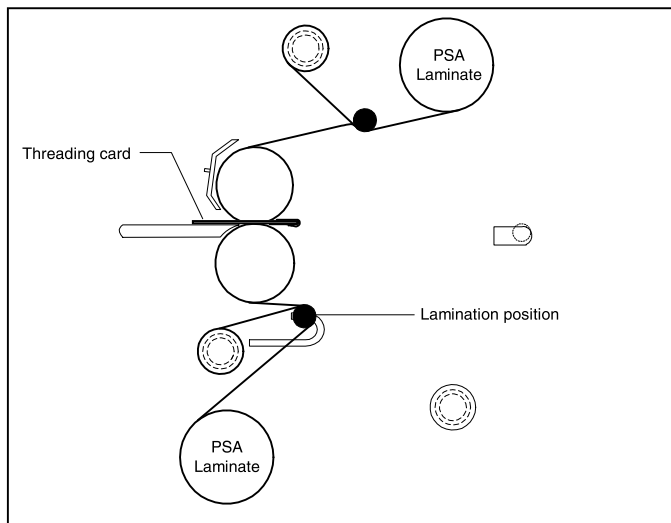


Fig. 23

### WEBBING PSA FILM USING THREADING CARD

The laminator should be cool to the touch before proceeding.

1. Turn the **Power ON/OFF** to on (I). If the laminator is already hot, turn **POWER ON/OFF** to the off (O) position and allow the unit to cool. Once cool, turn the laminator back on.
2. Ensure no brake tension is applied to the film shafts.
3. Remove the safety shield and pivot the feed table down.
3. Pull the top roll of film down under the idler bar and into the upper front rewind tube.
4. Place one piece of masking tape in the center of the film and secure to the rewind tube.
5. Make two full wraps around the rewind tube, then carefully score the laminate without cutting the release liner. Pull the laminate down allowing it to drape over the upper main roller (Figure 21).
6. Move the lower idler bar to the thread film position.
7. Pull the lower film behind the lower idler bar and up towards the front lower rewind tube. For PSA mount adhesive, refer to **TIPS FOR PSA ADHESIVE**.
8. Make two full wraps around the rewind tube, then carefully score the laminate without cutting the release liner. Pull the laminate up towards the film draped over the upper main roller (Figure 22).
9. Use a threading card to push the two materials through the main roller nip.
10. Pivot the table back to its feeding position while ensuring the threading card is on top of the feed table (Figure 23).
11. Move the lower idler bar into the lamination position.
12. Replace the safety shield.
13. Set speed to 3 or less.
14. Push the front roller "**PRESS**" (I) button to close the main rollers.
15. Push the start (▶) button.

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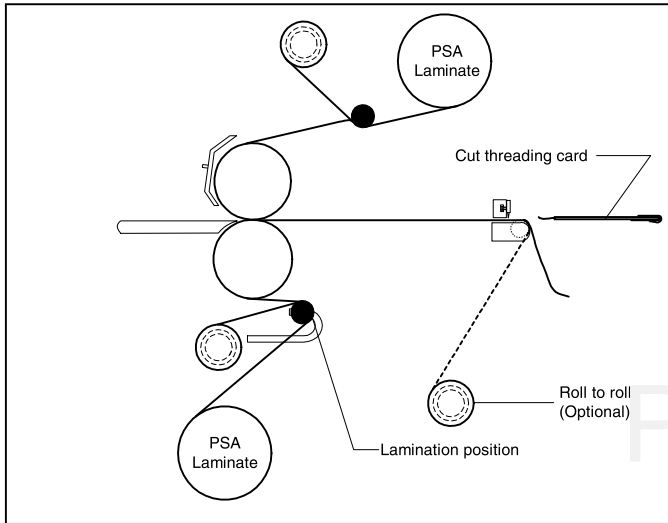


Fig. 24

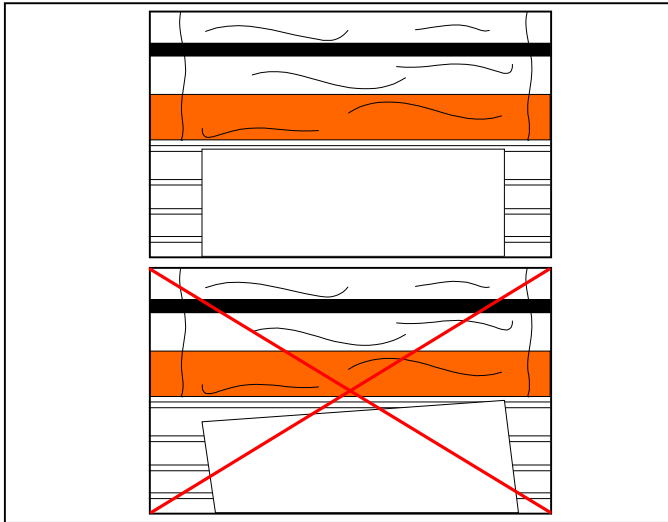


Fig. 25

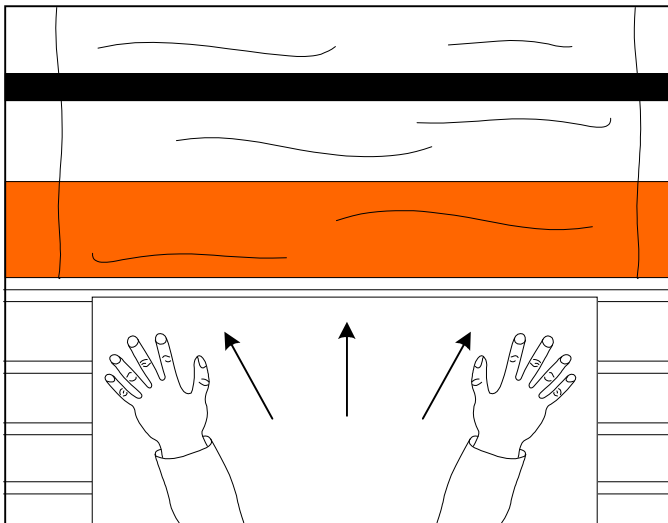


Fig. 26

16. Once the the threading card has passed the exit idler, press the stop (⏏) button.
17. Cut the threading card from the web. For roll to roll option, allow enough material to extend over the exit idler and down to the lower rear rewind (Figure 24).
18. Push the stop (⏏) button. Then Push the front roller "RELEASE" (⏏) button.
19. Now refer to the section entitled **START LAMINATING**.

#### START LAMINATING

1. At this point you should have your laminator webbed with the appropriate material for your application.
2. The safety shield and feed table should be in the normal operating position.
3. Select a job mode (⏏) and ensure the desired speed and top heat are correct.
4. Push the front roller "PRESS" (⏏) button.
5. Push the start button (▶).
6. Make any necessary film brake tension and/ or rewind brake tension adjustments to achieve desired output quality.
7. Position the item to be laminated on the feed table.
8. Align the leading edge of the item square to the main roller nip (Figure 25).
9. With both hands and an outward force push the image slower than the speed of the rollers into the nip of the main rollers (Figure 26).

**CAUTION:** Avoid forcing the image into the main roller nips this action will cause the corners of the leading edge to buckle and create a wave.

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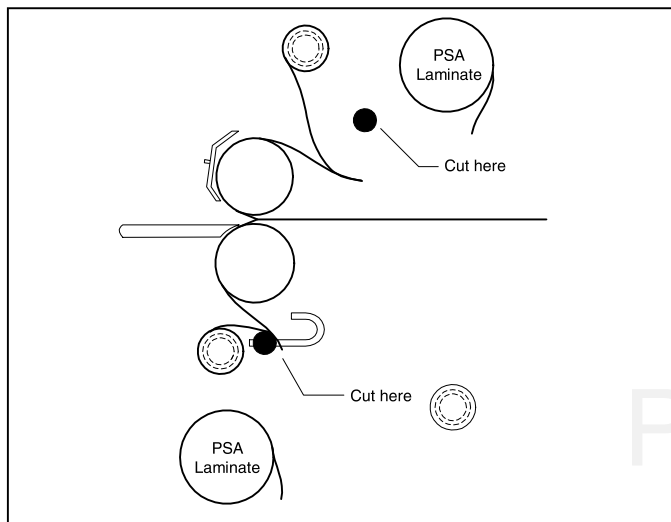


Fig. 27

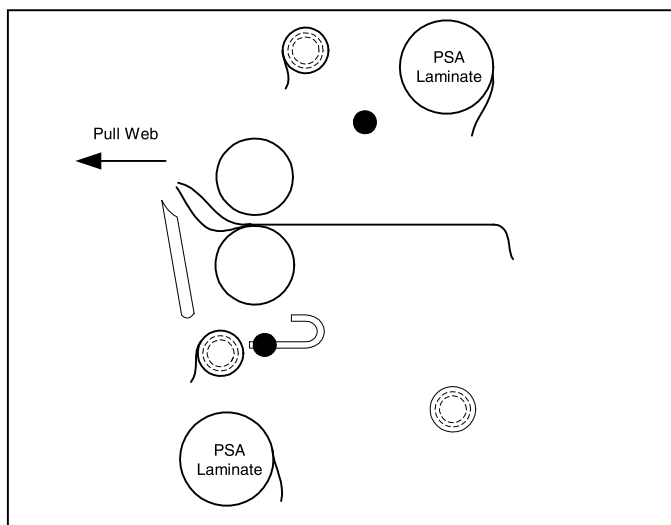


Fig. 28

### TO UNWEB THE LAMINATOR

Unweb the laminator if you are changing film widths, cleaning the rollers or have finished using the machine for the day.

1. Push the stop (⏏) button.
2. Using the rear slit, cut the output from the web.
3. Press **FRONT ROLLER RELEASE** (⏏).
4. Remove the safety shield, tilt the feed table down and move the lower idler to the web position.
5. Cut remaining top and bottom film web just behind the web idlers. (Figure 27). PSA Adhesive, cut near the roll of material. **Be careful not to cut any of the rollers!**
6. Manually roll the cut release liner on to the rewind tube. Do not allow the laminate to follow the release liner.
7. Carefully grab hold of the web (top and bottom film), from the front operating position and pull towards you (Figure 28).
8. Do not allow the adhesive side of the film to contact the main rollers.

### CLEARING A FILM JAM (Wrap-up)

Film jams (wrap-ups) may occur if the film is loaded backwards or if the area at which film exits the equipment is blocked. The film, when jammed, wraps around the main rollers during webbing if a threading card is not used.

#### To clear a jam:

1. Immediately stop the laminator by pressing **STOP** (⏏).
2. Remove the safety shield and tilt the feed table.
3. Press and hold **REVERSE** (⏏) until the jam has cleared the main rollers.
4. Press **FRONT ROLLER RELEASE** (⏏).
5. Manually assist the material through the main rollers.
6. Once the jam has been cleared, tilt the feed table up, replace the safety shield and press **FRONT ROLLER PRESS** (⏏).
7. You can now resume laminating.

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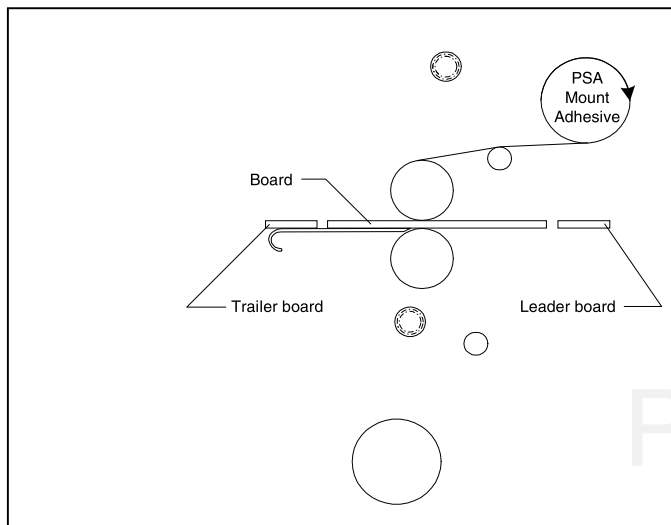


Fig. 29

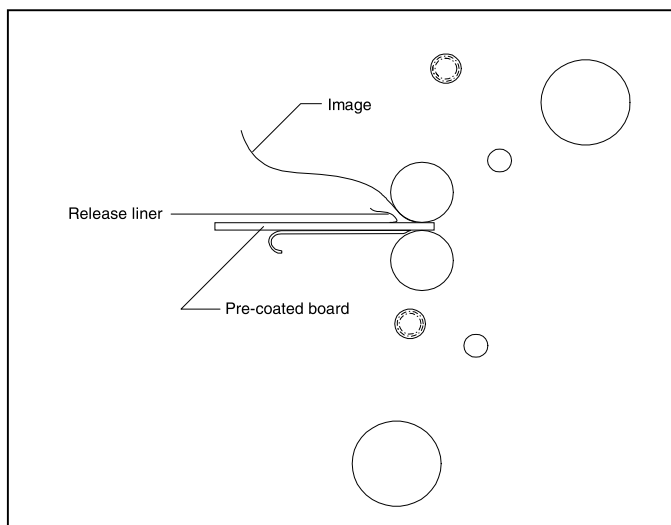


Fig. 30

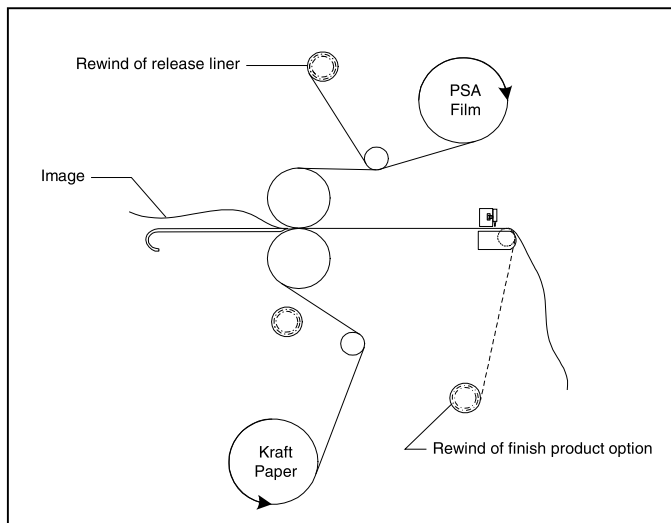


Fig. 31

#### TIPS FOR PRE COATING BOARDS (Figure 29)

1. Load the laminator as illustrated in Figure 29.
2. All of the tips for mounting will apply.
3. The width of the roll should not exceed the width of the board by more than 1/2 in. (1.3 cm).
4. Use a leader board to start the run and a trailer board to finish the run.
5. Have the boards nearby to butt end to end during feeding.
6. Remove the rear slitter bar.

#### TIPS FOR MOUNTING PRE-COATED BOARDS (Figure 30)

1. Load the laminator as illustrated in Figure 30.
2. Ensure the correct JOB MODE (■) is selected.
3. Ensure the rear slitter is not obstructing the path of the boards.
4. Heat, 125 °F (52 °C), may assist the process and increase output quality.
5. Do not stop once you have started the mounting process through the machine.
6. Remove the rear slitter bar.

#### TIPS FOR SINGLE SIDED LAMINATION (Figure 31)

1. Load the laminator as illustrated in Figure 31.
2. Use kraft paper for one-sided lamination whenever the items to be laminated are narrower than the film you are using.
3. For single runs, you may use a scrap piece of board as a sled.
4. If not using kraft paper, use a scrap piece to finish the run or you will have adhesive on your rollers.
5. A little heat, 125 °F (52 °C), may help eliminate silvering effects associated with PSA films.
6. For higher quantities, use the roll to roll feature.

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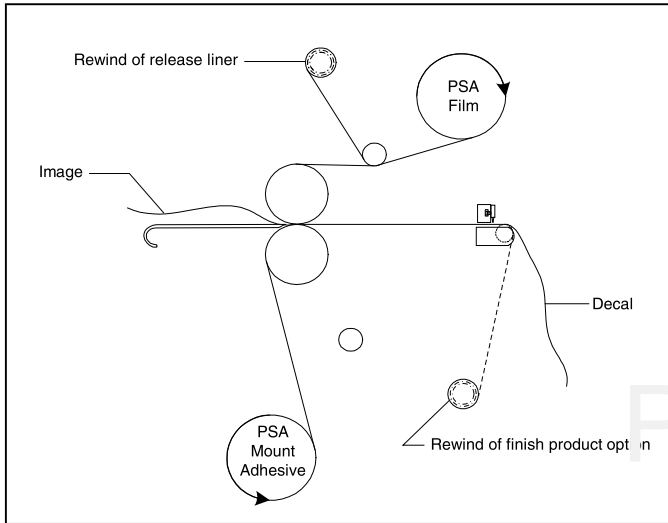


Fig. 32

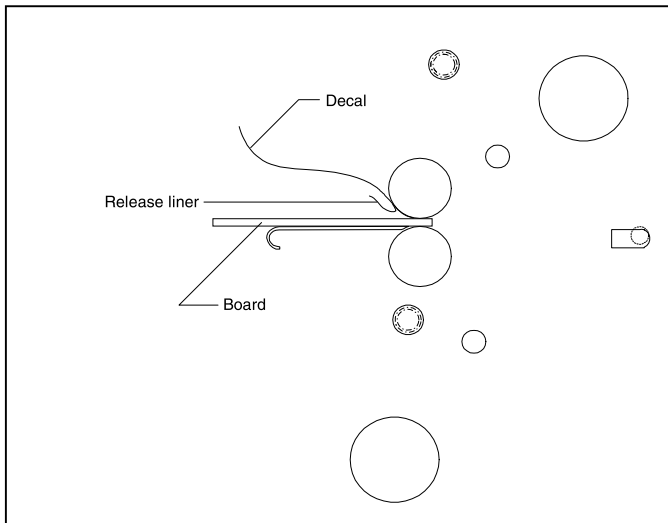


Fig. 33

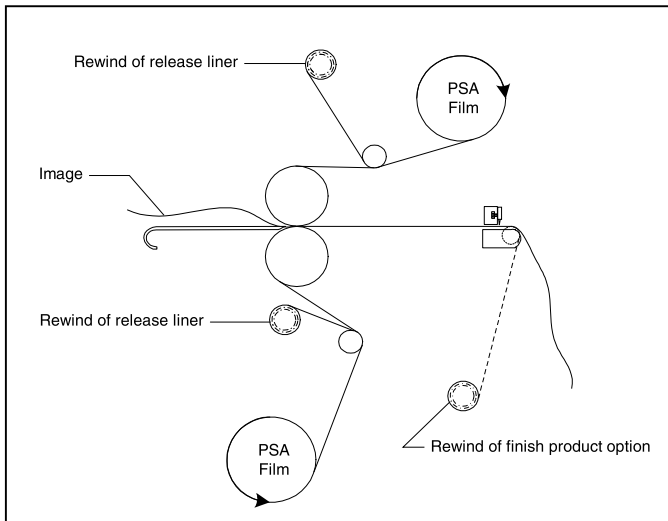


Fig. 34

#### TIPS FOR CREATING A DECAL (Figure 32)

1. Load the laminator as illustrated in Figure 32.
2. Run a test material prior to running the actual image to ensure flat output.
3. Use minimal brake tension to achieve quality output.
4. Do not web the PSA mount adhesive around the lower web idler.

#### TIPS FOR MOUNTING A DECAL (Figure 33)

1. Load the laminator as illustrated in Figure 33.
2. The image should not exceed the width of the board by more than 1 in. (2.54 cm) per side.
3. Tack about 1 in. (2.54 cm) of the leading edge of the decal to the leading edge of the board.
4. When tacking the leading edge, start in the center and work to the sides.
5. Use a board that exceeds the size of the decal if inexperienced in the mounting application.
6. Remove the rear slitter bar.

#### TIPS FOR PSA ENCAPSULATION (Figure 34)

1. Load the laminator as illustrated in Figure 34.
2. Always use two rolls of the same width.
3. Use minimal brake tension to achieve flat output.
4. The separation of the laminate and the release liner should be maintained close to the main rollers.
5. A little heat, 125 °F (52 °C), may help eliminate silvering effects associated with PSA films.

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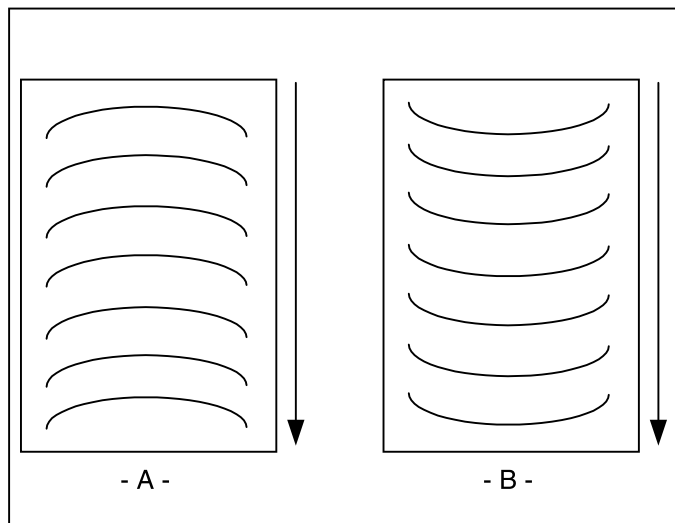


Fig. 35

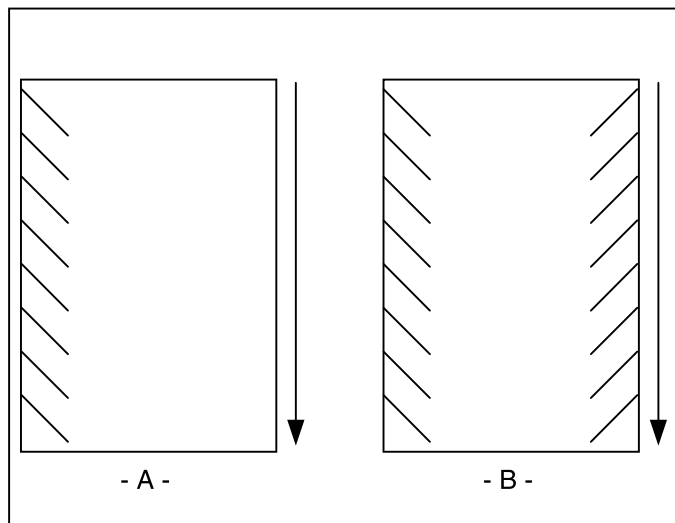


Fig. 36

## THE ART OF LAMINATION

## BASIC RULES

Do not attempt to laminate abrasive or metal objects such as staples, paper clips and glitter, as they may damage the main rollers.

Do not force items into the nip area of the main rollers. An item that is not easily drawn into the laminator by the main rollers is probably too thick to laminate.

Wrinkles may result if an attempt is made to reposition an item once it has been grasped by the main rollers.

Do not stop the laminator before an item has completely exited the main rollers. Even a momentary stop will cause a mark (dwell line) on the laminated item.

PSA Adhesives require a certain amount of cure time. Check with the film specifications for proper cure times.

## FILM TENSION

Proper film tension, known as brake tension, is the minimum amount required to eliminate wrinkles in the finished item. The film should be taut. A properly adjusted roll of film should not require excessive force to turn by hand.

Film tension should be enough to introduce a minor amount of drag as the film unrolls. Insufficient tension causes wrinkles, while too much tension causes stretching (necking). Uneven tension between the top and bottom rolls create curl. Too much upper tension creates upward curl while too much bottom tension causes downward curl.

## OUTPUT

## 1. "D" waves in the image (Figure 35 A).

- Check paper tension.
- Paper may be damp or not dry.

## 2. "D" waves in the laminate (Figure 35 B).

- Main air supply setting.
- Check main roller nip calibration.

## 3. Angled waves in the output (Figure 36 A &amp; B).

- Main air supply setting
- Check main roller nip calibration
- Check for even paper tension (Figure 36 A only)

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## MAINTENANCE

### CARING FOR THE GBC ORCA 64TH LAMINATOR

GBC offers Cleaning kits as well as Extended Maintenance Agreements.

Contact your local GBC Service Representative or your dealer/distributor for additional information.

The only maintenance required by the operator is to periodically clean the main rollers and schedule semi annual maintenance checks.

The following procedure will help keep the main rollers free of adhesive that has been deposited along the edge of the laminating film. Proper alignment of the rolls of film reduces the amount of “squeeze out”.



**WARNING: Do not attempt to laminate adhesives marked “Flammable”.**

- Do not laminate glitter and/ or metallic items. Damage to the rollers may result.



**WARNING: Do not apply any cleaning fluids or solvents to the rollers. Some solvents and fluids could ignite on heated rollers.**

- Never clean rollers with sharp or pointed objects.
- Hardened adhesive deposits on the rollers can cause damage to the rollers. Rotate the rollers at the lowest speed setting on the control panel and warm apply heat.



**CAUTION: THE FOLLOWING PROCEDURE IS PERFORMED WHILE THE LAMINATOR IS HOT. USE EXTREME CAUTION.**

1. Remove the film from the laminator following the procedure outlined in steps 1 through 6 of the section entitled **TO UNWEB THE LAMINATOR**.
2. Preheat the laminator until the “READY” indicator appears.
3. Remove the safety shield and tilt the feed table.
4. Rub the top and bottom heat rollers with a 3M™ Scotch-Brite™ pad . **DO NOT USE METAL SCOURING PADS!**
5. Use the footswitch to rotate the lower main roller to an unclean portion. The upper heated main roller is free spinning. Continue this process until the complete surface of both rollers are clean.
6. Refer to the beginning of the section entitled **OPERATING INSTRUCTIONS** to web your laminator.

**\*NOTE:** Do not use metal scouring pads to clean the rollers.

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## TROUBLE-SHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
• The control panel display does not illuminate when <b>POWER ON/OFF</b> is in the <b>ON</b> , marked "I", position.	Laminator not connected to electrical supply.	Insert attachment plug into receptacle.
• Main rollers do not turn when I press the <b>START</b> (▶) button.	Safety shield is not properly installed. Feed table interlock pin not in place. E-STOP is engaged	Remove safety shield and properly replace it. Slide interlock lever all the way into the left and right side frame. Pull out on the E-STOP push button.
• Main rollers only turn in "Footswitch Enabled" mode.	Safety shield is not properly installed. Feed table interlock pin not in place.	Remove safety shield and properly replace it. Slide interlock lever all the way into the left and right side frame.
• Laminated items exhibit curling.	Tension between the top and bottom film roll is unequal. Tension on top or bottom roll of film is too loose. Speed setting too slow. Bottom film roll may be improperly loaded.	Adjust tension per section <b>FILM TENSION</b> . Adjust tension per section <b>FILM TENSION</b> . Slightly speed up the laminator. Make sure bottom roll of film is around idler bar and the it is in the normal operating position.
• Adhesive deposited on main rollers.	Top and bottom film webs not aligned. Laminate improperly loaded.	Release main roller pressure, align the rolls of film. Adhesive side of laminate film may be against the main rollers. Unweb and reload the film properly.
• Unsatisfactory adhesion of laminate.	Speed setting too fast. Insufficient cure time. Laminate improperly loaded. Main rollers require cleaning. Laminated item unsuitable for adhesion.	Decrease speed setting to allow a longer dwell time. Allow adhesive to cure for a minimum of 12hours before handling. Adhesive side of film must be facing away from the main rollers. Bottom roll of film not threaded behind the idle bar. Clean main rollers per procedure in section <b>CARING FOR THE GBC ORCA 64 TH LAMINATOR</b> . Item may be dirty or may have non-porous surface that is extremely difficult to laminate.
• Waves in my output	See sub section <b>OUTPUT</b> . Nips may be out of calibration.	Under section titled <b>THE ART OF LAMINATION</b> . Place a service call for calibration check.

## SERVICE AGREEMENT

GBC's Equipment Maintenance Agreement will insure the quality performance and long life built into your laminator.

A service charge for travel time, labor and parts may be incurred for each out of warranty service call. GBC's Equipment Maintenance Agreement decreases these expenses and protects your valuable investment. GBC offers several types of agreements to suit your needs and budget. To contact GBC write to:

GBC NATIONAL SERVICE  
ONE GBC PLAZA  
NORTHBROOK, IL 60062 U.S.A.  
1.847.272.3700

IN CANADA:

GBC NATIONAL SERVICE  
49 RAILSIDE ROAD  
DON MILLS, ONTARIO  
M3A 1B3

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## RECOMMENDED SPARES

GBC Recommends these spare items to reduce your down time in the event of a problem with your laminator. By having these recommended items on hand, your machine can be up and running usually on the same day it goes down which enables you to produce quality lamination that much sooner. You may choose to all the recommended items or condense the list to fit your comfort and needs.

<u>Part number</u>	<u>Item</u>	<u>Qty</u>
609060110	DC Geared Motor	1
706011163	PCB, Interrupter	1
704090253	E-STOP Switch	1
703070283	Air Filter Assembly	1
607050121	Heat Roller, Upper	1
607050119	Main Roller, Lower	1
704090419	Micro Switch, Table	1
609040302	Vacuum Fan	2
705200201	Infrared Sensor	1
706011196	PCB, Tension Adjust	1
703070281	Main Cylinder	1
703070284	Solenoid Valve	1
609050311	Synchronous Motor	2
601310508	Micro Switch, Shield	1
706011192	PCB, Control Panel	1
706011193	PCB, Motor Drive	1
706011195	PCB, Vacuum Drive	1
706011741	PCB, EMO Control	1
706011740	PCB, Main Control	1
706011198	PCB, Power Supply	1
706025095	Heater Assembly	1
810600026	Heater Support Wire	1
8040201	In-Line Slitter Blade	2

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**General Binding Corporation**  
**One GBC Plaza**  
**Northbrook, IL 60062-4195**

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