



SPIRE III Series Laminator

Models 44T, 64T, 64Ct,

INSTALLATION & OPERATION MANUAL

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INTRODUCTION

The SPIRE III Series Laminators are designed to provide you with improved productivity, versatility, and quality.

Note: Depending on the model of your Laminator and its version, the photos in this manual may not look like your Laminator. However, the components and functions are the same.

FEATURES

- Simple intuitive control panel with LED pressure readout
- Hand crank for opening and closing rollers provide infinite choice of settings
- Deep Feed Table for feeding larger sheets of media
- 2 inch mounting gap for thicker substrates

APPLICATIONS

- Trade show graphics
- Posters
- Rigid displays
- Backlit displays
- Window displays
- POP displays
- Banners
- Flexible displays
- Directional signage

FILMS

COLD

- Arctic[®] Pressure Sensitive Films
- Arctic Pressure Sensitive Mounting Adhesives

HEAT

- Octiva[®] Thermal Films
- Octiva Lo-Melt[®] Thermal Films
- AccuShield[®]



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1. SAFETY

Your safety, as well as the safety of others is important. Before you install or use the machine, read and follow all the safety notices carefully in this chapter. In this instruction manual, and on the laminator, you will find important safety notices related to the use of the laminator. Observe all the safety information provided.

Read all of the instructions and save these instructions for further use. Also make sure you have been fully trained before operating the laminator.

The safety alert symbol precedes each safety notice in this manual. The symbol indicates a potential personal safety hazard to you or others.

This safety alert symbol indicates a potential electrical shock. It warns you not to open the laminator and expose yourself to hazardous voltage.

The following warnings are found on the SPIRE Series laminator.

MUCHOCUIDADO	ATTENTION	WARNING	WAARSCHUWING	ATTENZIONE	WARNUNG
Riesgo de choque eléctrico. No abra. Adentro, no hay piezas reparables para el usuario. Mantenimiento solamente para personal calificado.	Risque de secousse électrique. Ne pas ouvrir. Pas de pièces réparables par l'utilisateur. Entretien par personnel qualifié.	Electrical shock hazard. Do not open. No user serviceable parts inside. Refer servicing to qualified service personnel.	Kans op elektrische schokken. Niet openen. Vervang geen originele onderdelen en voer zelf geen reparaties uit aan de machine. Door bevoegd servicepersoneel laten herstellen.	Pericolo di scarica elettrica. Non aprire. Nessuna parte riparabile dall'utente. Chiamate un servizio di riparazioni qualificato.	Spannungsführende Teile. Nicht öffnen. Enthält keine vom Endverbraucher zu wartende Teile. Für Service bitte an qualifiziertes Service-Personal wenden.

This safety notice means that you could be seriously hurt or killed if you open the laminator and expose yourself to hazardous voltage. Do not open the laminator. There are no user serviceable parts inside. Refer service to qualified service personnel.

WARNING

ATTENTION

MUCHO CUIDADO

HOT ROLLERS.

CRUSH HAZARD.

Keep hands and fingers away.

ROULEAUX CHAUDE. RISQUE DE BROYMENT. Tenir mains et doigts à l'écart.

RODILLOS CALIENTES. RIESGO DE PINCHAMIENTO. Mantener manos y dedos a distancia.

This safety notice means that the hot rollers could burn you and that your fingers and hands could be trapped and crushed in the rollers. Clothing, jewelry and long hair could be caught in the rollers and pull you into them. Keep fingers, hands clothing, jewelry, and long hair away from the rollers.

This safety notice means that the hot rollers could burn you. Keep fingers and hands away from the hot rollers.

CUIDADO

ATTENTION

CAUTION

Hot Surface.

Surface chaude.

Superficie caliente.

This safety notice means that your fingers and hands could be trapped and crushed in the rollers. Clothing, jewelry and long hair could be caught in the rollers and pull you into them. Keep fingers, hands clothing, jewelry, and long hair away from the rollers.



! WARNINGS

- Do not attempt to service or repair the laminator.
- Do not open the laminator. There are no serviceable parts inside. Refer service to qualified service personnel.
- 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.
- Entrapment hazard. Do not operate when alone. More than one person is required to be in the area when operating the machine.
- To guard against injury, the general safety precautions must be observed when installing and using the laminator.
- Consider the work area. A cluttered work area can lead to accidents. The laminator must be placed on a sturdy level floor surface. Allow sufficient access to the front, back, and sides of the laminator. Keep the work area well lit.

Failure to observe these warnings could result in severe personal injury or death.

CAUTIONS



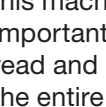
Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or cause damage to the machine.

GENERAL

- Keep fingers, hands clothing, jewelry, and long hair away from the front of the rollers to avoid entanglement and entrapment.
- Do not use the laminator for other than its intended purposes.
- Avoid quick stops, excessive force and uneven floor surfaces when moving 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.



This safety notice means that your fingers and hands could be trapped and crushed in the gear and chain. Clothing, jewelry and long hair could be caught in the gear and chain and pull you into them. Keep fingers, hands clothing, jewelry, and long hair away from the gear and chain.

		
<p>Ne pas utiliser cette machine avant de lire et de comprendre entièrement le manuel d'utilisation.</p> <p>Danger de piégeage. Ne pas faire fonctionner la machine lorsque vous êtes tout seul. Il faut qu'il y ait plus d'une personne dans la zone pendant le fonctionnement de la machine.</p>		
<p>No operar ésta máquina sin leer y comprender las instrucciones de operación completamente.</p> <p>Peligro de inmovilización por atrapamiento. No operar si está solo. Para operar es necesario que haya más de una persona presente en el área.</p>		
<p>Do not operate this machine until you have read and understand the operating instructions completely.</p> <p>Entrapment hazard. Do not operate when alone. More than one person is required to be in the area when operating.</p>		

Before you operate this machine, it is important that you read and understand the entire contents of these instructions and be fully trained.

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

Disconnect the attachment plug from the receptacle to which it is connected and keep the power supply cord in your possession while moving the laminator.

GBC TECHNICAL SERVICE

To order replacement accessories, service, parts, or an Equipment Maintenance Agreement, please contact GBC Technical Service and Support at:

UNITED STATES

ACCO Brands
 GBC Technical Service and Support
 4 Corporate Drive
 Lake Zurich, IL 60047
www.gbconnect.com

1-800-723-4000

CANADA


Ontario and Quebec – 1-800-268-3310
 All other Provinces – 1-800-268-3447
 Local 905-595-3100
Callcentre@GBCCanada.com

MEXICO

(55) 15 00 57 00

ELECTRICAL


The laminator should be connected only to a source of power as indicated in these instructions and on the nomenclature 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.

 **WARNING:** Do not attempt to service or repair the laminator. Failure to observe this warning could result severe personal injury or death.


Disconnect the plug from the receptacle and contact your dealer or distributor, or GBC Technical Service at 1-800-723-4000, 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.
- The laminator does not operate as described in these instructions.


SAFETY LABEL LOCATIONS

⚠ MUCHO CUIDADO	⚠ ATTENTION		⚠ WARNING	⚠ WAARSCHUWING	⚠ ATTENZIONE	⚠ WARNUNG
Riesgo de choque eléctrico. No abra. Adentro, no hay piezas reparables para el usuario. Mantenimiento solamente para personal calificado.	Risque de secousse électrique. Ne pas ouvrir. Pas de pièces réparables par l'utilisateur. Entretien par personnel qualifié.		Electrical shock hazard. Do not open. No user serviceable parts inside. Refer servicing to qualified service personnel.	Kans op elektrische schokken. Niet openen. Vervang geen originele onderdelen en voer zelf geen reparaties uit aan de machine. Door bevoegd servicepersoneel laten herstellen.	Pericolo di scarica elettrica. Non aprire. Nessuna parte riparabile dall'utente. Chiamare un servizio di riparazioni qualificato.	Spannungsführende Teile. Nicht öffnen. Enthält keine vom Endverbraucher zu wartende Teile. Für Service bitte an qualifiziertes Service-Personal wenden.


Inside electrical panel on back



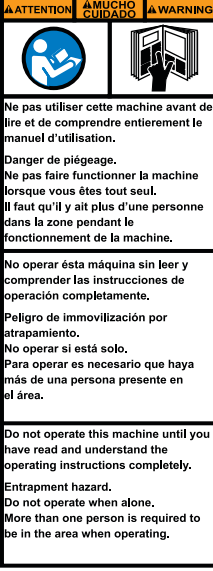
Both rear sides




Surface.




On back



Inside panel both ends





HOT ROLLERS. CRUSH HAZARD. Keep hands and fingers away. ROULEAUX CHAUDES. RISQUE DE BROYMENT. Tenir mains et doigts à l'écart. RODILLOS CALIENTES. RIESGO DE PINCHAMIENTO. Mantener manos y dedos a distancia.

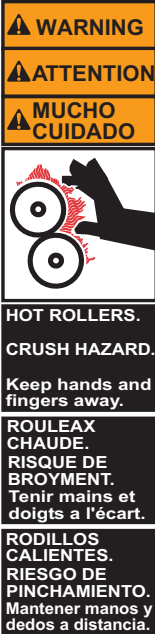


Figure 1. SPIRE III Series safety label locations.

2. WARRANTY

LIMITED 90-DAY WARRANTY

ACCO Brands USA LLC, ACCO Brands, 4 Corporate Drive, Lake Zurich, IL 60047 (in Canada, ACCO Brands Canada Inc., 7381 Bramalea Road, Mississauga ON L5S1C4; and in Mexico, ACCO Brands Mexicana, Neptuno 43, Fraccionamiento Nueva Industrial Vallejo México 07700 D.F. México) (each, respectively, “ACCO Brands”) warrants to the original purchaser that this SPIRE III Series Laminator ACCO Brands product is free from defects in workmanship and material under normal use and service for a period of 90 days after purchase.

ACCO Brands’ obligation under this warranty is limited to replacement or repair, at ACCO Brands’ option, of any warranted part found defective by ACCO Brands without charge for material or labor. Any replacement, at ACCO Brands’ option, may be the same product or a substantially similar product that may contain remanufactured or refurbished parts. This warranty shall be void in the following circumstances:

- (i) if the product has been improperly installed or misused,
- (ii) if the product has been damaged by negligence or accident, or
- (iii) if the product has been altered by anyone other than ACCO Brands or ACCO Brands’ authorized agents.

Without limiting the generality of the previous paragraph, ACCO Brands’ obligation under this limited warranty does not include:

- (a) damage caused to the rollers by knives, razors, or other sharp tools; by any foreign objects falling into the working area of the laminator; or by cleaning the laminator with solutions or materials that harm its surfaces;
- (b) damage caused by adhesives; nor
- (c) damage caused by lifting, tilting or attempting to position the laminator other than rolling it on its castors across even surfaces.

For warranty execution, please contact ACCO Brands at:

1-800-723-4000 or www.gbconnect.com in the USA
800-263-1063 or www.gbcanada.com in Canada
(55) 1500-5578 or www.gbc.com.mx in Mexico

TO THE EXTENT ALLOWED BY APPLICABLE LAW, THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES. REPRESENTATIONS OR PROMISES INCONSISTENT WITH OR IN ADDITION TO THIS WARRANTY ARE UNAUTHORIZED AND SHALL NOT BE BINDING ON ACCO BRANDS. TO THE EXTENT PERMITTED BY APPLICABLE LAWS, ANY IMPLIED WARRANTIES (IF APPLICABLE) ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. SOME STATES AND JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. TO THE EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL ACCO BRANDS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL OR SIMILAR DAMAGES, WHETHER OR NOT FORESEEABLE. SOME STATES AND JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF SPECIAL, INCIDENTAL, PUNITIVE, EXEMPLARY, CONSEQUENTIAL, OR SIMILAR DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU.

FOR CONSUMERS WHO HAVE THE BENEFIT OF CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR JURISDICTION OF PURCHASE OR, IF DIFFERENT, IN THEIR JURISDICTION OF RESIDENCE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS.

To the extent permitted by law, this warranty is not transferable and will automatically terminate if the original product purchaser sells or otherwise disposes of the product.

This warranty gives you specific legal rights. Other rights, which vary from jurisdiction to jurisdiction, may exist. In addition some jurisdictions do not allow (i) the exclusion of certain warranties, (ii) limitations on how long an implied warranty lasts and/or (iii) the exclusion or limitation of certain types of costs and/or damages, so the above limitations may not apply.



3. SPECIFICATIONS

Model	44T	64T	64Ct
Operating Speed	Up to 20 fpm (6 mpm)		
Maximum Temperature	300 °F (149 °C)		120 °F (49 °C)
Maximum Mounting Thickness	Main Roller: 2 in. (50 mm) Max. Pull Roller: 2 in. (50 mm) total working gap		Main Roller: 2 in. (50 mm) Max.
Maximum Film Width	44 in. (111.8 cm)	64 in. (162.5 cm)	64 in. (162.5 cm)
Dimensions (unit only) <ul style="list-style-type: none"> • Width • Height • Depth 	61 in. (156.2 cm) 31.5 in. (80 cm) 55.9 in. (142 cm)	81.2 in. (206.2 cm) 31.5 in. (80 cm) 55.9 in. (142 cm)	81.2 in. (206.2 cm) 31.5 in. (80 cm) 55.9 in. (142 cm)
Weight <ul style="list-style-type: none"> • Unit only • Shipping 	691 lb. (314 Kg). 880 lb. (400 Kg).	902 lb. (410 Kg) 1166 lb. (530 Kg)	803 lb. (365 Kg) 1067 lb. (485 Kg)
Electrical Requirements (U.S. Models) <ul style="list-style-type: none"> • Voltage • Current • U.S. Receptacle 	208-240V 60 Hz single phase 24 Amps NEMA 6-30 Refer to the nomenclature plate located on the rear of the laminator for the specific electrical rating applicable to the unit.	208-240V 60 Hz single phase 26 Amps NEMA 6-50 Refer to the nomenclature plate located on the rear of the laminator for the specific electrical rating applicable to the unit.	115V 60 Hz single phase 12 Amps NEMA 5-15 Refer to the serial plate located on the rear of the laminator for the specific electrical rating applicable to the unit.



Figure 2. SPIRE Series dimensions.



FCC CLASS A NOTICE

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CANADA CLASS A NOTICE - AVIS CANADA, CLASSE A

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

MODIFICATIONS

Any modifications made to this device that are not approved by ACCO Brands may void the authority granted to the user by the FCC and/or by Industry Canada to operate this equipment.

Toutes modifications apportées à ce dispositif et non approuvées par ACCO Brands annuleront le droit accordé à l'utilisateur par le FCC et/ou par Industrie Canada de faire fonctionner cet équipement.

4. INSTALLATION



WARNING: Do not attempt to service or repair the laminator. Failure to observe this warning could result in severe personal injury or death.

Disconnect the plug from the receptacle and contact GBC Technical Service 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.
- The laminator does not operate as described in these instructions.

GBC TECHNICAL SERVICE

United States

1-800-723-4000

Canada

Ontario and Quebec – 1-800-268-3310

All other Provinces – 1-800-268-3447

Local 905-595-3100

Mexico

(55) 15 00 57 00

PRIOR TO INSTALLATION

Inspect the crate and laminator for damage. Shipping damage should be brought to the immediate attention of the delivering carrier.



WARNING: Do not attempt to move the laminator across anything other than a flat, level surface without trained and qualified riggers. You can be severely injured or crushed.

The SPIRE Series is a large and heavy piece of equipment. It is necessary to employ licensed riggers only to move the laminator. The laminator is not designed to be tipped up or tipped sideways in anyway.

INSTALLATION

There are no operator serviceable parts to the machine other than periodic cleaning. Refer to the Operator Maintenance chapter.



WARNING: A trained GBC Technician **MUST** install the laminator for the first time. Failure to observe this warning could result in severe bodily injury or death.

CAUTION: Do not attempt to install the laminator yourself for the first time. You could damage the machine.

To prepare the site for the laminator for the first time:

1. Allow enough room to access all sides of the laminator. Refer to the illustration on the next page.
2. Ensure the floor is stable and a flat surface capable of supporting the weight of the machine and any materials. All four castors should be able to be positioned completely on a level and smooth surface.

LOCATION

Provide adequate space around the laminator as shown in the illustration.

The laminator should be located so that exiting film drops freely to the floor or to a table that is lower than the exit point of the laminator. Accumulation of laminate immediately behind the laminator as it exits the equipment may cause the film to wrap around the rollers, jamming the machine.

Avoid locating the laminator near sources of heat or cold. The laminator should not be in the direct path of forced heated or cooled air.

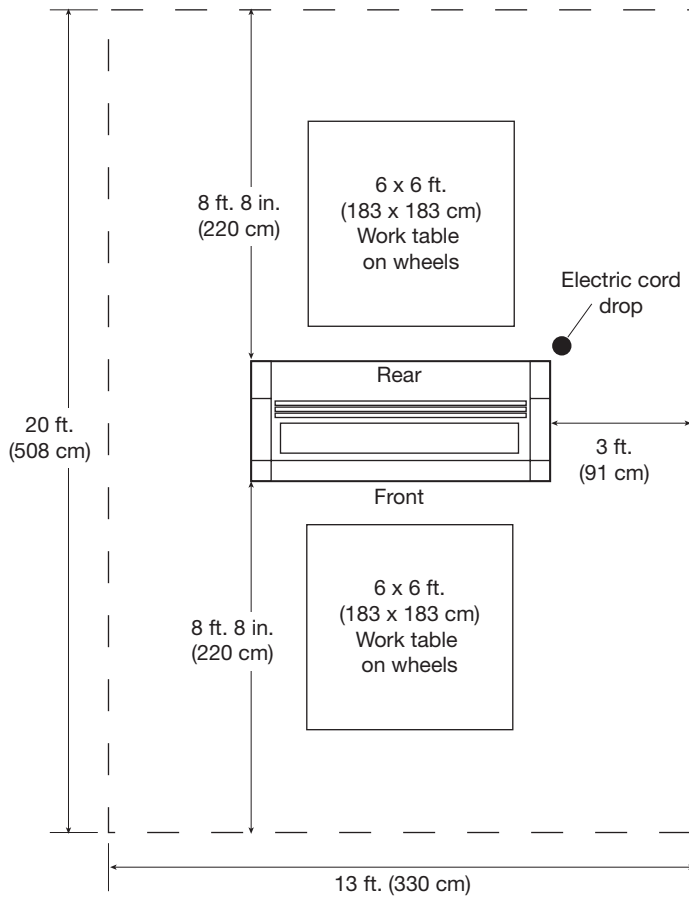


Figure 3. Laminator location dimensions.

5. FEATURE GUIDE

This chapter helps you identify the main components of the laminator.

Note: Depending on the model of your Laminator and its version, the photos in this guide may not look like your Laminator. However, the components and functions are the same. Your laminator may not have all the options shown below. For option upgrades, contact your local sales rep or Technical support. Refer to "GBC Technical Service".

Front View

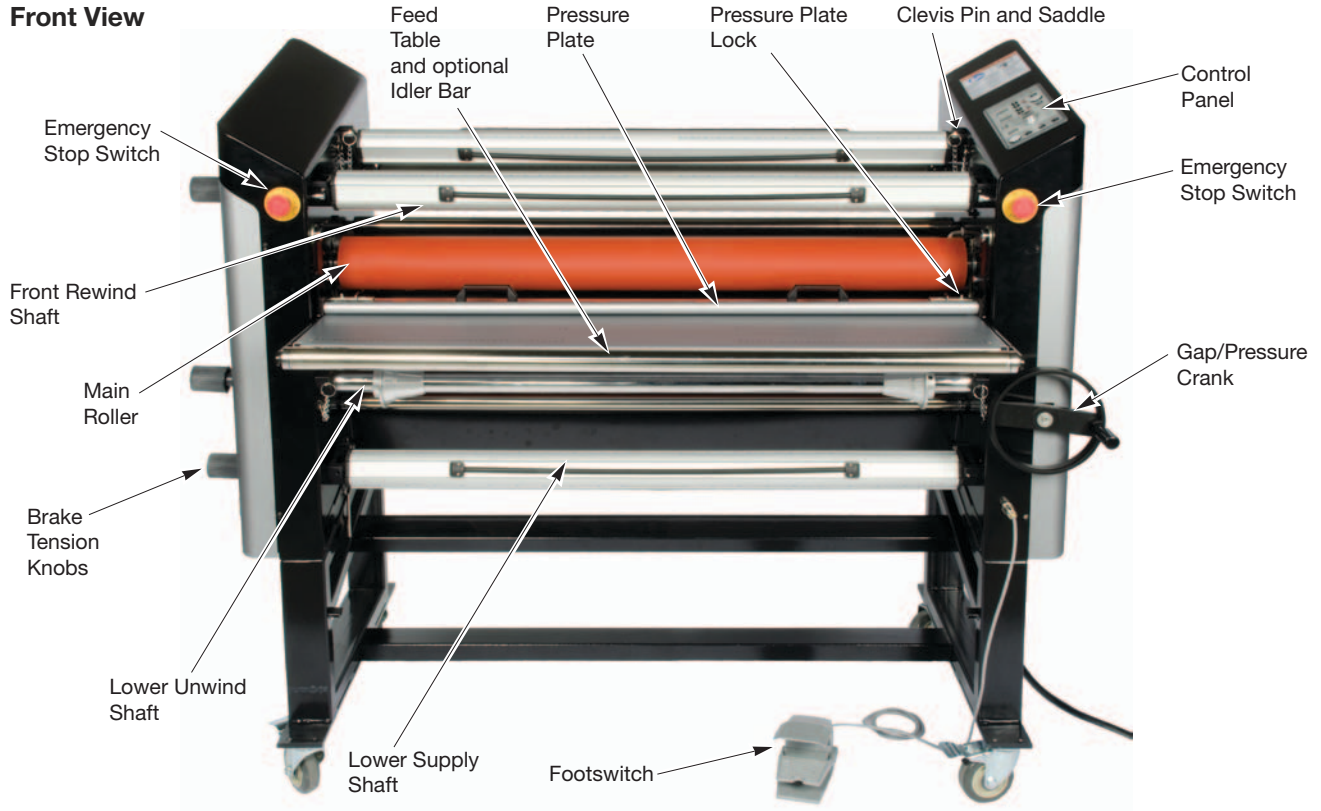


Figure 4. Laminator identification.

EMERGENCY STOP SWITCHES



Figure 5. Emergency Stop Switch near Operator Panel.

Four Emergency Stop, (also referred to as E-Stop) Switches are available on the Laminator. The Emergency Stop Switches are located on all four upper corners of the machine.

To engage the Emergency Stop Switch (A), press any one down to stop the roller movement.

To disengage the Emergency Stop Switch, turn it clockwise after the emergency condition has been resolved.

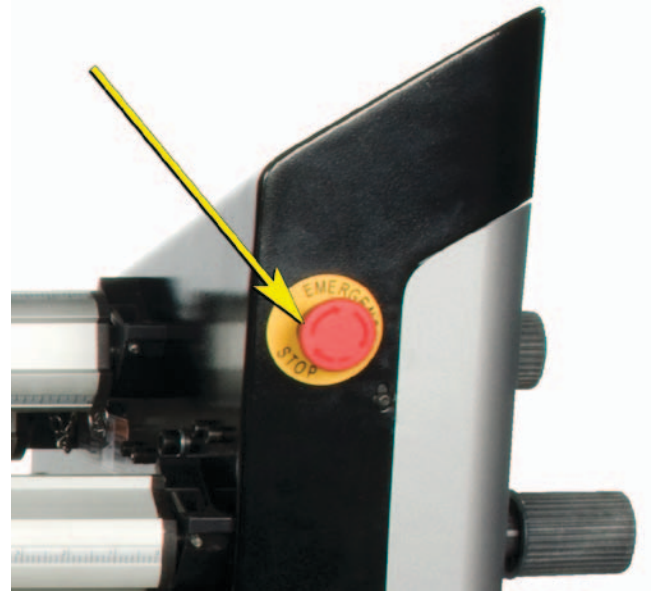


Figure 6. Emergency Stop Switch on back of the laminator.

AUTOGRIP AND MULTI CORE SHAFTS

The 3 inch AUTOGRIP and Multi Core Shafts can be used in all positions as supply or rewind shafts. Rulers in inches and centimeters are incorporated into each AUTOGRIP Shaft.

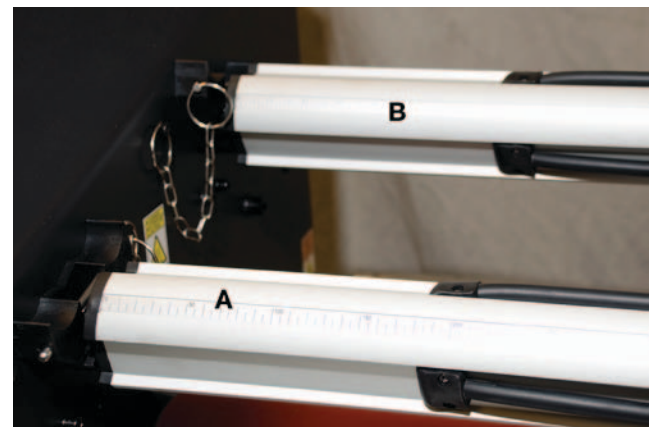


Figure 7. Upper Front Rewind and Upper Unwind Shafts.

A. UPPER FRONT REWIND SHAFT

The Upper Front Rewind Shaft is used to rewind release liners or finished media.

B. UPPER UNWIND SHAFT

The Upper Unwind Shaft is used to hold film or media that will be used for the job, and to apply brake tension.

MAIN ROLLERS AND UPPER IDLER

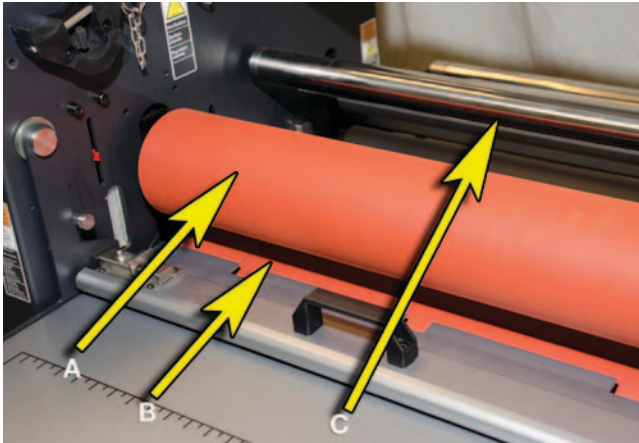


Figure 8. Top and bottom Main Rollers, and Upper Idler.



WARNING: Keep your hands and fingers away from the point between the two Main Rollers (nip point). Do not operate when alone. More than one person is required to be in the area when operating. Failure to observe this warning could result in severe personal injury.

If entrapment between the Main Rollers occurs, use the Emergency Stop Switch.

Emergency Stop Switches

The Emergency Stop Switches are located on all four upper corners of the machine.

Turn the Gap/Pressure Crank clockwise to raise the Top Main Roller and release the pressure.

A. & B. MAIN ROLLERS

In heated models, the silicone rubber coated steel tube heats the laminating film and compresses the heated film to the items being laminated. Heat is provided by an internal heating element. The rollers drive the media into the laminator.

44T, 64T

Both the Top and Bottom Main Rollers are heated.

64Ct

The Top Main Roller is heated and the Bottom Main Roller is not heated.

C. UPPER IDLER

The Upper Idler guides the upper lamination onto the Top Main Roller, ensuring a constant amount of wrap on the Top Main Roller.

GAP/PRESSURE CRANK



Figure 9. Gap/Pressure Crank and Footswitch cable.

The Gap/Pressure Crank sets the Main Roller gap and the Pull Roller (44T, 64T) gap. Turn the handle counterclockwise to lower the Main Roller to increase the roller pressure.

FOOTSWITCH JACK

The Footswitch jack (not shown) is located directly below the Gap/Pressure Crank. To connect the Footswitch, align the slot in the cable connector with the key at the top of the jack, press the connector in, and then screw the collar to secure.

FOOTSWITCH



Figure 10. Footswitch.

The Footswitch allows you to start and stop the laminator while handling the item to be laminated. Press the Footswitch to run the laminator and release it to stop the laminator.

When the Footswitch is used and the Safety Sensor is blocked, the speed of the laminator drops to 3 fpm (0.9 mpm). When the Feed Table is raised, the rollers will rotate if the Footswitch is pressed. The machine will run at 3 fpm (0.9 mpm).

LOWER SHAFTS AND IDLER BAR

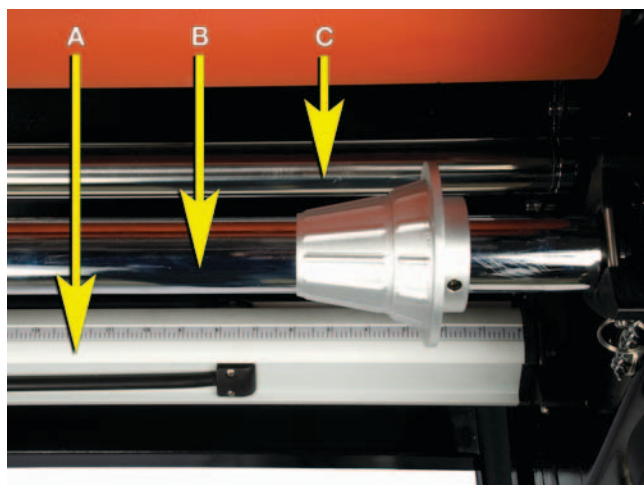


Figure 11. Lower Idler Bar and Shafts.

A. LOWER REWIND SHAFT

The optional Lower Rear Rewind AUTOGRIP Shaft is used to rewind release liners or finished media.

B. LOWER MULTI CORE SUPPLY SHAFT

The Lower Multi Core Supply Shaft is used to hold film or media to be used for the job and to apply brake tension.

C. LOWER IDLER BAR

The Lower Idler guides the lower film or media onto the Bottom Main Roller, ensuring a constant amount of wrap is on the Bottom Main Roller.

MULTI CORE ADAPTORS

Multi Core Adaptors grip the media supply tube. The Multi Core Adaptors accommodate 2 through 3 inch diameter cores.

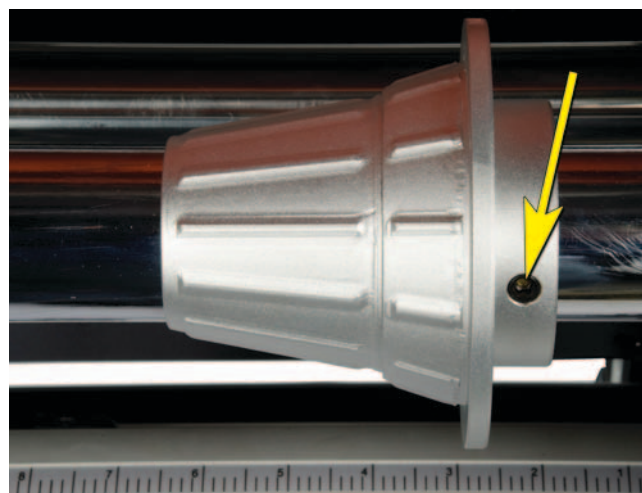


Figure 12. Multi Core Adaptor on a Shaft.

The Multi Core Adaptors are secured to the shaft with two hex head screws. Using an Allen wrench, loosen the screws and slide the Multi Core Adaptor along the shaft to accommodate the core, and then tighten the screws.

SHAFT STORAGE CRADLE



Figure 13. Shaft Storage Cradle on Back of the Laminator.

Use Shaft Storage Cradles to store shafts that are not in use.

PULL ROLLERS AND CHILL IDLER (44T, 64T)

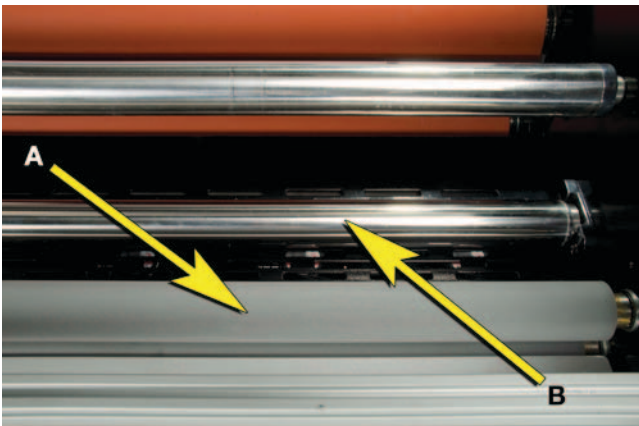


Figure 14. Pull Rollers and Chill Idler. Shown from rear.



WARNING: Keep your hands and fingers away from the point between the two Main Rollers (nip point) and Pull Rollers. Do not operate when alone. More than one person is required to be in the area when operating. Failure to observe this warning could result in severe personal injury.

If entrapment between the Main or Pull Rollers occurs, use an Emergency Stop Switch.

Emergency Stop Switches

The Emergency Stop Switches are located on all four upper corners of the machine.

Pull Rollers raise and lower with the Main Rollers by turning the Gap/Pressure Crank.

A PULL ROLLERS (44T, 64T)

The Pull Rollers are motor driven and are located at the back of the laminator. The rollers pull the film and image through the laminator.

C. CHILL IDLER

The Chill Idler is located between the Main and Pull Rollers. While film or media is exiting through the Main Rollers, the Chill Idler cools the media as it exits the Main Rollers.

COOLING FANS (44T, 64T)

Located behind the Main Rollers, the fans cool the web as it exits the heated rollers.

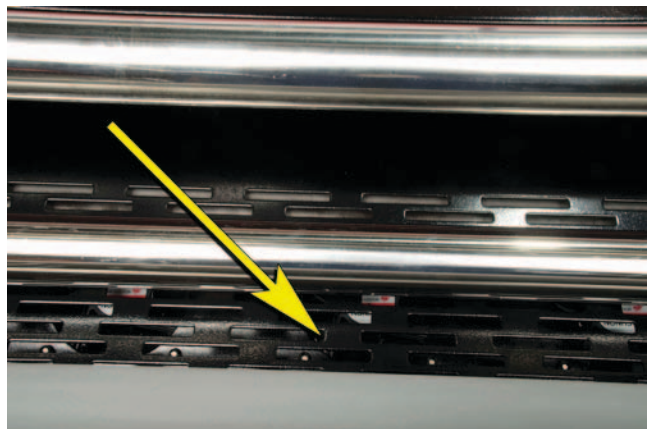


Figure 15. Cooling Fan Ports. Shown from rear; Pull Roller in foreground.

REAR TABLE AND OPTIONAL IDLER

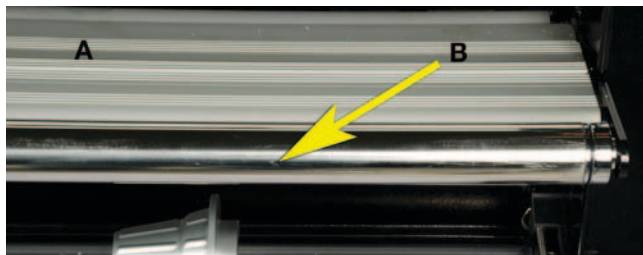


Figure 16. Rear Table and Optional Idler.

A. REAR TABLE

The Rear Table supports the media as it exits the machine.

B. OPTIONAL REAR TABLE IDLER

The Optional Rear Table Idler is part of the Rear Table and assists the web as it exits the laminator.

PHOTO SAFETY SENSOR, GAP GAUGE, TABLE ALIGNMENT KNOB

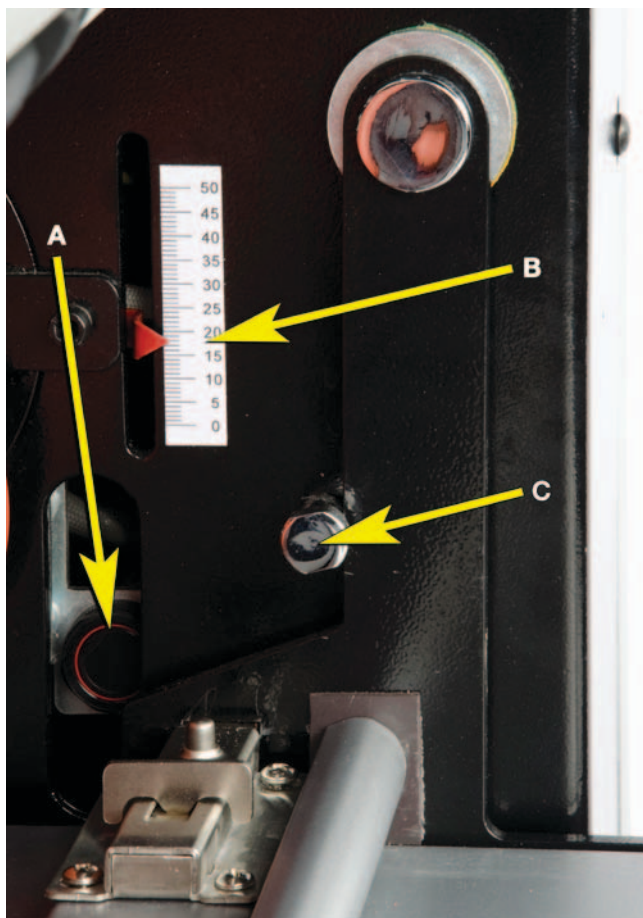


Figure 17. Components on right side of Feed Table.

A. PHOTO SAFETY SENSOR

The Photo Safety Sensor helps prevent entanglement, entrapment, and inadvertent contact with the rollers. The Sensor is located on the right side of the machine, in front of the Bottom Main Roller. Its reflector is at the opposite end of the Feed Table. The Sensor stops the machine when a hand or object blocks the invisible beam if you are not using the Footswitch.

To return to normal operation after the obstruction has been cleared, press **RUN**.



WARNING: Using the Footswitch overrides the Photo Safety Sensor and the speed drops to 3 fpm (0.9 m). When the Footswitch is released, the laminator stops.

B. GAP GAUGE

The Gap Gauge indicates the amount of gap between the Main Rollers. Use the Gap/Pressure Crank to adjust the gap.

C. TABLE ALIGNMENT KNOB

The Table Alignment Knob ensures that the table is properly aligned with the Main Pressure Rollers. Adjustment must be made by service personnel only.

PRESSURE PLATE

The Pressure Plate helps keep prints flat while being fed into the rollers. The pressure Plate must be removed before raising the Feed Table.

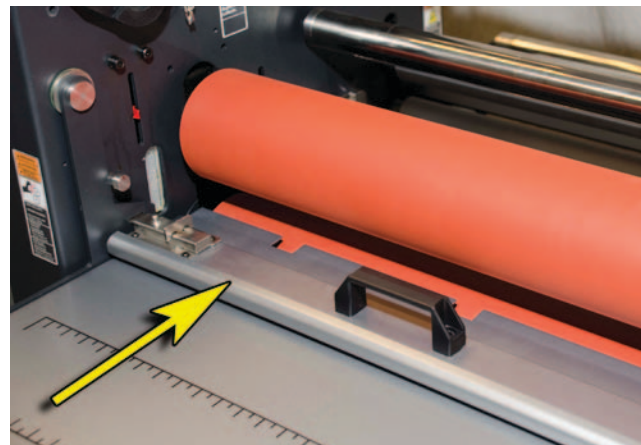


Figure 18. Pressure Plate.



WARNING: Rollers may be hot. Take care not to touch rollers while removing or installing the Pressure Plate.

REMOVING THE PRESSURE PLATE

To remove the Pressure Plate:

1. To unlock the Pressure Plate Lock, press the Release button. The Lock releases the locking pin from the hole.

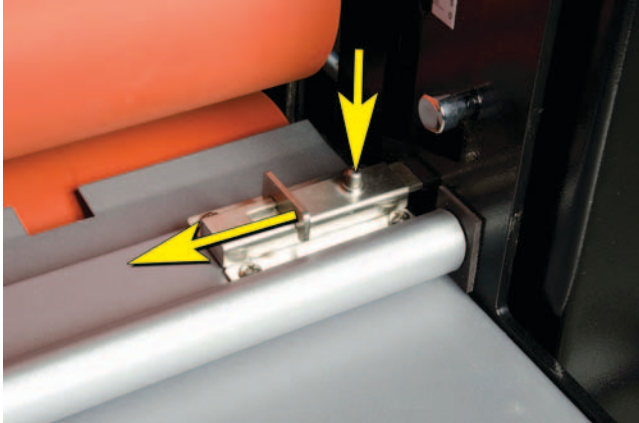


Figure 19. Pressure Plate Release button and locking pin.

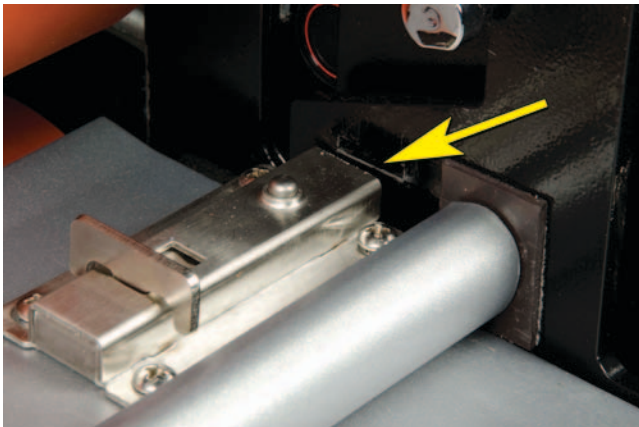


Figure 20. Pressure Plate Lock unlocked.

2. Unlock the Lock at the other end of the Pressure Plate.
3. Using the handles, remove the Pressure Plate.

Note: The Laminator will operate only when the Feed Table is properly Installed. However, if the Feed Table is raised, the laminator will only operate when the Footswitch is pressed. When the Footswitch is released, the laminator stops.

To install the Pressure Plate:

1. Using the handles, place the Pressure Plate so that the Locks align with the locking holes.
2. Push the Pressure Plate Lock lever outward until the Release button stays up and the Pressure Plate is secure.

FEED TABLE

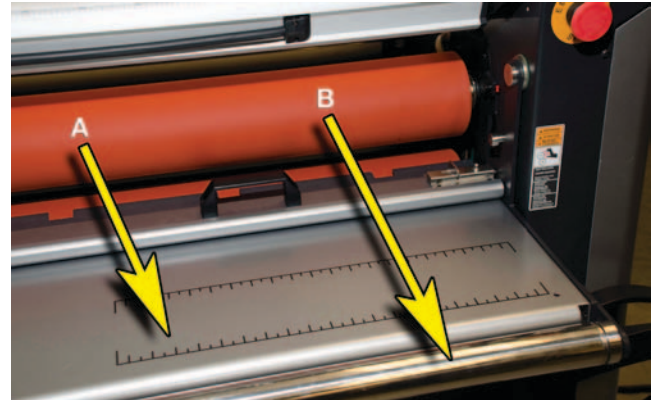


Figure 21. Feed Table and optional Idler.

The Feed Table (A) is used to position items for laminating and mounting. The Feed Table is raised only when you load film and to clean the rollers. The Table incorporates an optional Idler on the leading edge (B).

When the Feed Table is raised, the laminator runs at 3 fpm (0.9 m) when you press the Footswitch. Releasing the Footswitch stops the laminator.

RAISING THE FEED TABLE

⚠ WARNING: Raising the Feed Table exposes moving parts. This means you can be harmed when the Feed Table is raised. Make sure to lower the Feed Table when film loading is completed.

The Feed Table must be raised to load films.

To raise the Feed Table:

1. Remove the Pressure Plate. Refer to the “Removing the Pressure Plate” section.
2. Grasp the front edge of the Feed Table and raise it outward and up until it is over the Upper Front Rewind Shaft.



Figure 22. Raise the Front of the Table.

3. Raise it until it is above the Front Main Roller.

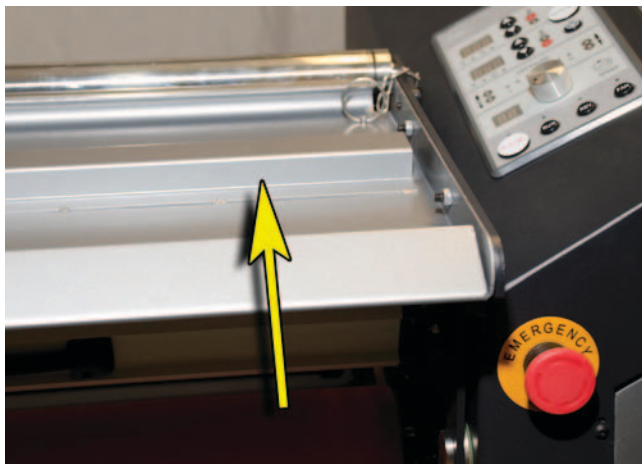


Figure 23. Feed Table in Raised Position.

4. Secure the Feed Table with an Upper Front Rewind Shaft Clevis Pin.

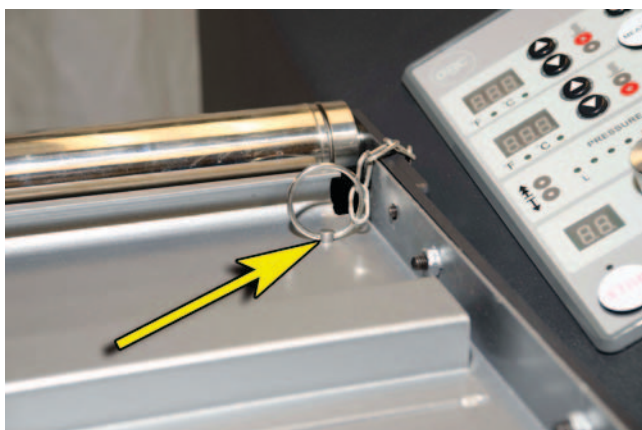


Figure 24. Clevis Pin Securing the Table.

IR SENSOR

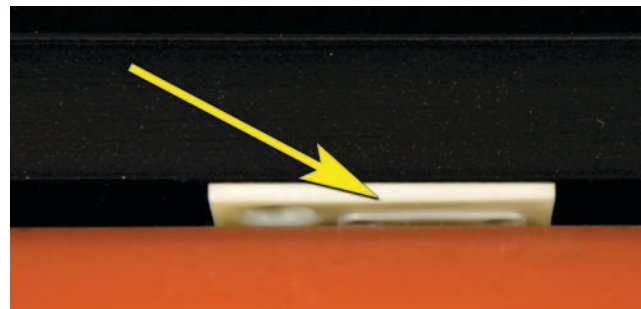


Figure 25. IR Sensor Behind the Top Main Roller.

Depending on the laminator, IR Sensors read the temperature of the heated Main Rollers to ensure proper temperature. The Top Main Roller (44T, 64T, 64Ct) IR Sensor is located behind the Main Roller. The Bottom Main Roller (44T, 64T) IR Sensor (not shown) is located behind the Bottom Main Roller.

CLEARING A BLOCKED IR SENSOR

If the IR Sensor becomes blocked, an alarm sounds and the display on the Control Panel flashes. The obstruction must be cleared before continuing operation. Refer to the “Clear a Film Jam (Wrap-Up)” section.



WARNING: Hot rollers could burn you. Keep fingers and hands away from the hot rollers.

TENSION ADJUSTMENT KNOBS

Turn the knobs clockwise to increase tension and counterclockwise to reduce tension.



Figure 26. Tension Knobs on end of the laminator.

A. OPTIONAL UPPER REAR REWIND TENSION

Use the optional Upper Rear Rewind Tension knob to adjust the amount of pull on the finished media.

B. UPPER UNWIND TENSION

Use the Upper Unwind Tension to adjust the amount of film web tension as needed to reduce curl and wrinkles.

C. UPPER FRONT REWIND TENSION

Use the Upper Front Rewind Tension knob to adjust the amount of pull on the release liner. This prevents the release liner from being pulled into the laminator or the film from wrapping around the rewind tube.

D. PULL ROLLER CLUTCH TENSION (44T, 64T)

Use the Pull Roller Clutch Tension knob to adjust the amount of film web tension as needed to reduce curl and wrinkles.

E. OPTIONAL LOWER FRONT UNWIND TENSION

Use the optional Lower Front Unwind Tension to adjust the amount of brake that is being applied to the film or media.

F. OPTIONAL LOWER REAR REWIND TENSION

Use the Optional Lower Rear Rewind Tension knob to adjust the amount of pull on the release liner.

G. FRONT LOWER UNWIND TENSION

Use the Front Lower Unwind Tension to adjust the amount of film web tension as needed to reduce curl and wrinkles.

Note: ALWAYS RELEASE ALL TENSION BRAKES, BOTH UPPER UNWIND AND REWIND, BEFORE LOADING THE FILM. ONCE LOADED, START BY ADDING TENSION TO THE REWIND FIRST.

CONTROL PANEL

The Control Panel is located on the right side of the machine and controls all operations of the machine.

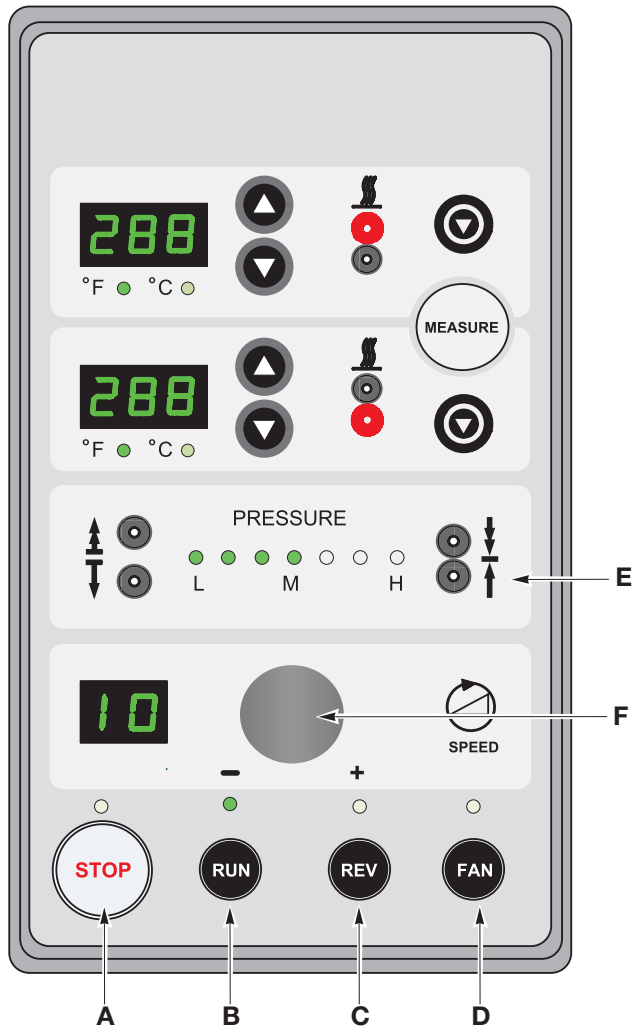


Figure 27. Model T Control Panel shown.

The following elements apply to all models.

A. STOP

Press to stop the rollers. The LEDs above the buttons illuminate to indicate which function is selected.

B. RUN

Press to run the rollers at the selected speed.

C. REV

When this button is pressed and held, the rollers will rotate at 3 ft./minute in reverse. Once the REV button is released, the Rollers will stop rotating in reverse.

D. FAN (44T, 64T)

Press to turn on the fans and press again to turn off the fans. The Fans only run when the motor is rotating. When **FAN** is pressed, the LED turns on, but the fans only function when the motor is rotating. When the motor stops rotating, the fans also stop.

E. PRESSURE

LEDs illuminate to indicate the amount of pressure between the Main Rollers.

F. SPEED CONTROL KNOB

Turn to increase or decrease the roller speed. Rotate clockwise to increase speed. Rotate counterclockwise to reduce speed. The range is 1 to 10 and the maximum speed is 20 ft. (6 meters) per minute. The display indicates the set speed. The display flashes when using the Footswitch to indicate an override of the Photo Safety Sensor and the Interlock on the Feed Table. Refer to the “A. Photo Safety Sensor” and “Raising the Feed Table” sections.

MODEL 44T, 64T CONTROL PANEL ELEMENTS

The 44T and 64T models include the above items and controls for the top roller. The top roller controls operate the same as the Lower roller controls.

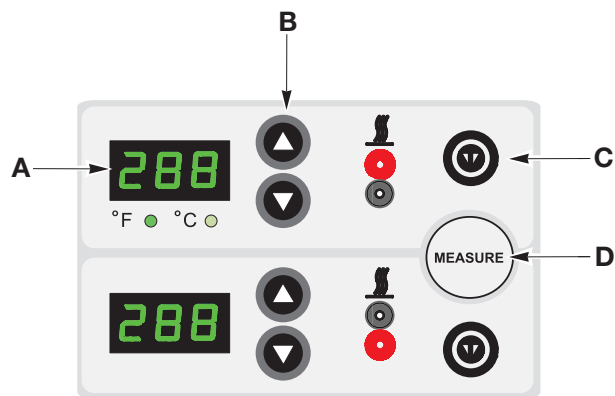


Figure 28. 44T, 64T Control Panel Elements.

A. ROLLER HEATER TEMPERATURE DISPLAY

Displays the lower heater setpoint temperature. If the Lower IR sensor is blocked, the alarm sounds and the display flashes until the obstruction is resolved and the MEASURE button is pressed. Refer to “IR Sensor” and “Clear a Film Jam (Wrap-Up)” sections.

When the laminator is set to Fahrenheit, the °F LED is illuminated and when the laminator is set to Celsius, the °C LED is illuminated.

B. ROLLER HEATER TEMPERATURE INCREASE AND DECREASE BUTTONS

Press the Increase or Decrease button one time to increment the temperature setpoint by 1 degree. Press and hold to change the temperature rapidly.

C. HEAT ON AND OFF BUTTON

Press to turn on the heat. The Temperature displays the setpoint temperature. Press again to turn off the heat

D. MEASURE BUTTON

Press to display the actual temperature of the roller. The value displays for 10 seconds.

MODEL 64Ct CONTROL PANEL ELEMENTS

The 64Ct models include items A through C, E, F, (Figure 27) and the following.

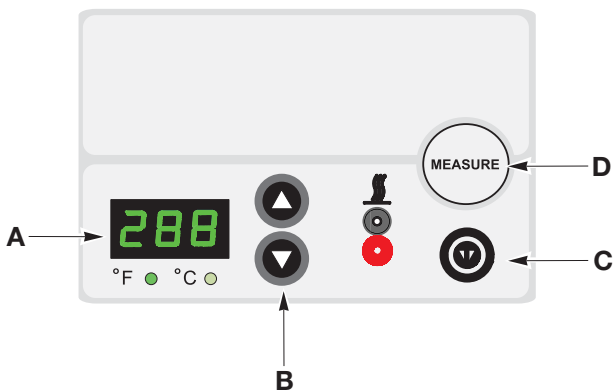


Figure 29. 64Ct Control Panel Elements.

A. LOWER ROLLER HEATER TEMPERATURE DISPLAY

Displays the lower heater setpoint temperature. If the Lower IR sensor is blocked, the alarm sounds and the display flashes until the obstruction is resolved and the MEASURE button is pressed. Refer to “IR Sensor” and “Clear a Film Jam (Wrap-Up)” sections.

When the laminator is set to Fahrenheit, the °F LED is illuminated and when the laminator is set to Celsius, the °C LED is illuminated.

B. LOWER ROLLER HEATER TEMPERATURE INCREASE AND DECREASE BUTTONS

Press the Increase or Decrease button one time to increment the temperature setpoint by 1 degree. Press and hold to change the temperature rapidly.

C. LOWER HEAT ON AND OFF BUTTON

Press to turn on the heat. The Temperature displays the setpoint temperature. Press again to turn off the heat

D. MEASURE BUTTON

Press to display the actual temperature of the roller. The value displays for 10 seconds.

POWER



Figure 30. Power Cord (44T, 64T).

POWER PANEL

The Power Panel includes the Power Cord and Breaker ON/OFF Switch. The Power Cord is permanently attached at the laminator and has a NEMA rated plug at the wall socket end as follows:

- 44T – NEMA 6-30
- 64T – NEMA 6-50
- 64Ct – NEMA 5-15

Note: The serial number nomenclature plate may not look the same as the one shown in the photo.

BREAKER ON/OFF SWITCH



Figure 31. Breaker ON/OFF Switch.

To apply power to the laminator, flip the Breaker up to the ON position. To disconnect power to the laminator, flip the Breaker to the OFF position.

If the Breaker has tripped, correct the problem that caused it to trip and then press the orange Rest button to reset the breaker.

To test the Breaker, press the blue Test button. Press the Rest button to reset the breaker.

CASTORS

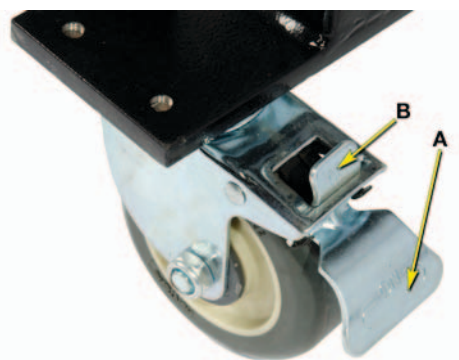


Figure 32. Castor and Locking Pad.

The swivel Castors allow the laminator to be rolled into position and two of the castors can be locked to prevent movement.

Press the ON pad (A) to lock the wheel and Press OFF (B) to release.

! WARNING: Keep the Power Cord away from the Castors. Castors can damage the Power Cord. If the Power Cord insulation is damaged, disconnect the plug from the receptacle and contact your dealer, distributor or Technical Service for assistance.



6. OPERATION

SEQUENCE OF OPERATION

Mode	Photo Safety Sensor Clear and No Micro Switches activated	Photo Safety Sensor Blocked	Micro-Switch Activated	Emergency Stop (E-Stop) Switch Pressed
RUN	When RUN is pressed, the rollers rotate at the set speed.	When the Photo Safety Sensor is blocked, the rollers do not rotate when RUN is pressed.	When the Micro-Switch ^a is activated, the rollers do not rotate when RUN is pressed.	When RUN is pressed, the rollers do not rotate.
When machine is running	The rollers will rotate at the set speed.	When the Photo Safety Sensor is blocked when the machine is running, the rollers stop.	When the Micro-Switch ^a is activated while the machine is running, the rollers stop.	When an Emergency Stop Switch (also referred to as E-Stop) is pressed while running, the rollers stop.
Footswitch is pressed	When the Footswitch is pressed the rollers rotate at the set speed.	When the Footswitch is pressed, the rollers rotate at 3 ft. (1 meter) per min.	When the Footswitch is pressed, the rollers rotate at 3 ft. (1 meter) per min. when you press the Footswitch.	When the Footswitch is pressed the rollers do not rotate.
	When the Footswitch is released, the rollers stop rotating unless RUN is pressed and the Footswitch is released.	Once the Photo Safety Sensor is clear, RUN is pressed, and the Footswitch is released, the rollers rotate at the set speed without stopping.	When the Footswitch is released, the rollers will stop rotating.	
REV (Reverse)	When REV is pressed and held, the rollers rotate in reverse at 3 ft. (1 meter) per min.	When REV is pressed and held, the rollers rotate in reverse at 3 ft. (1 meter) per min.	When REV is pressed and held, the rollers rotate in reverse at 3 ft. (1 meter) per min.	When REV is pressed and held, the rollers do not rotate.
	When REV is released, the rollers stop rotating.			

a. An internal Micro-Switch is activated when the Feed Table is raised.

LOADING FILM

The SPIRE Series laminator runs poly-in and poly-out pressure sensitive adhesive (PSA) films. Poly-in means the adhesive side of the film is on the inside of the film roll. Poly-out means the adhesive is on the outside of the film roll.

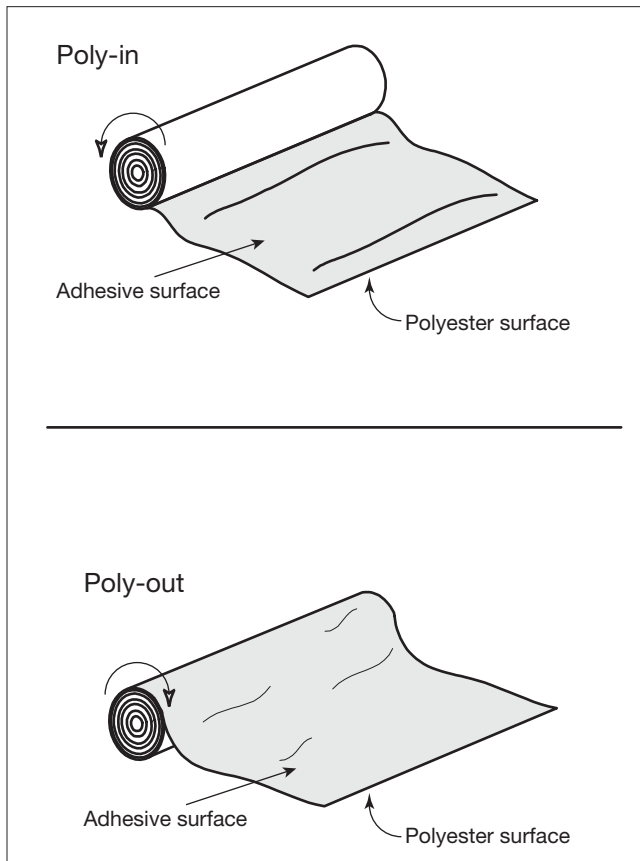


Figure 33. Fig. 6-1. Poly-in and Poly-out Films.

All models of the SPIRE Series laminator can perform three functions:

- Decaling (laminating and applying an adhesive to the back of the item).
- Mounting, using one film.
- Mounting, using no film.

In addition to the above, the following model is capable of an additional function.

T Models

Accushield and two-sided thermal lamination.

IMPORTANT: The top and Lower rolls of laminating film must be the same width.

Always change the top and Lower supply rolls at the same time.

The film will wrap around the rollers if:

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

There are three methods of loading film.

- New film start up.
- Using a threading card.
- Tacking new film to existing film.

LOADING FILMS FOR THE FIRST TIME

The film shafts rest in Support Saddles at both ends. The driven end of each shaft is slotted to engage a key.

WARNING: Rollers may be hot. Hot rollers could burn you. Take care not to touch rollers while removing, loading, or changing film.

Caution: Press **STOP** before loading films to ensure the machine is not running.

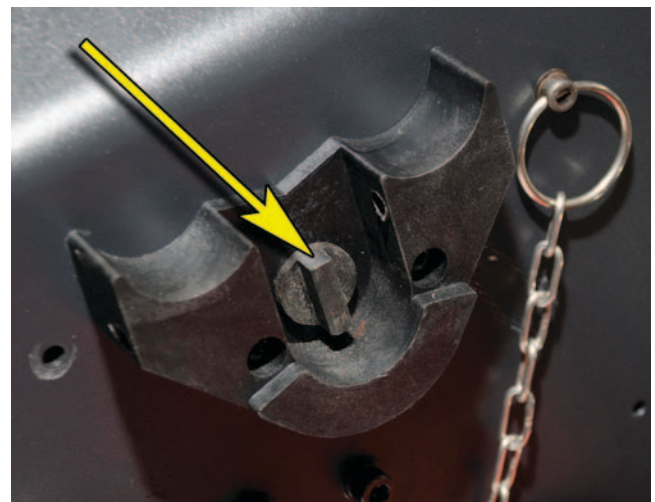


Figure 34. Driven Shaft Saddle Key.

To load the machine with film:

1. Press **STOP**.
2. Pull both Shaft Clevis Pins out of both ends. Turn the supply shaft until the slot indicator is facing out.

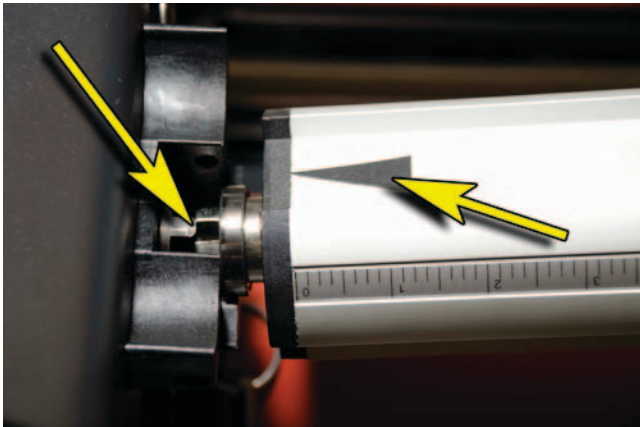


Figure 35. Shaft slot indicator.

3. Lift the driven end of the shaft out of the Saddle, and then pull the shaft out of the opposite Saddle.
4. Slide the roll of film onto the film shaft, ensuring the adhesive does not make contact with the roller.
5. Insert the film shaft back into the film shaft Support Saddle.
6. Push the clevis pin through the holes in the Support Saddle.

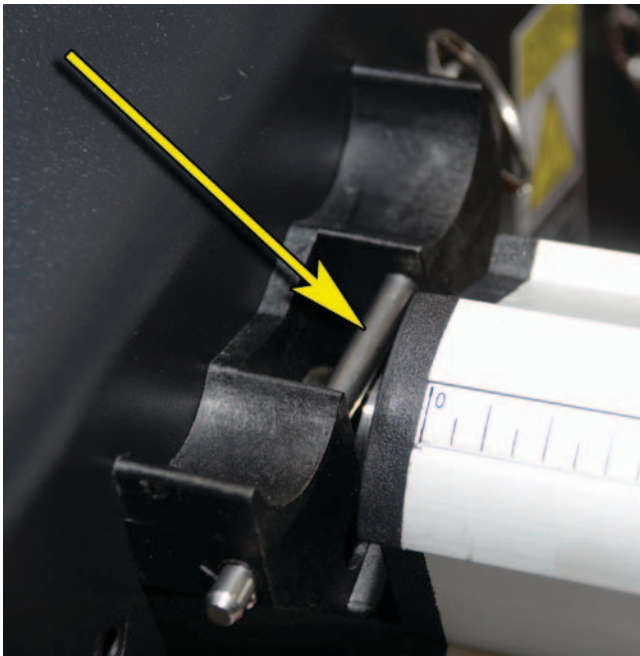


Figure 36. Shaft Clevis Pin in the Support Saddle.

7. Center each supply roll on the shafts using the rulers on the shafts. Refer to “Film Alignment”.

WEBBING THE MACHINE

Prior to webbing the machine, ensure the supply rolls are centered on the shafts. Also make sure to remove all brake tension on the unwind and supply shafts before you begin.

WARNING: Rollers may be hot. Hot rollers could burn you. Take care not to touch rollers while removing, loading, or changing film.

Caution: Press **STOP** to ensure the machine is not running.

Note: Depending on the model of your laminator and its version, the photos in this guide may not look like your laminator. However, webbing the machine is the same.

To web the machine:

1. Guide the top film under the Idler and back up to the rewind tube.



Figure 37. Pulling pressure sensitive adhesive (PSA) film to the Rewind Tube.

2. Fasten the center of the film to the to the rewind tube with tape.



Figure 38. Taping film to the rewind tube.

3. Make two full wraps around the rewind tube.
4. Using a very sharp utility knife, lightly score the laminating film without cutting the release liner.



Figure 39. Separating film from the release liner.

5. Pull the laminate down, allowing it to drape over the Upper Main Roller. Ensure that the film is pulled evenly and that no bulges exist at either end of the idler bar.



Figure 40. Pulling laminate film to Upper Main Roller.

6. Remove the Pressure Plate. Refer to the “Removing the Pressure Plate” section.
7. Raise the Feed Table. Refer to the “Raising the Feed Table” section.

! WARNING: Raising the Feed Table exposes moving parts. This means you can be harmed when the Feed Table is raised. Make sure to lower the Feed Table when film loading is completed.

8. For the Lower media, guide the media around the idler and up to the Main Rollers.
9. While pulling evenly, carefully align the edges of the media with the laminating film, and press the two together. It is important that the tension is even from one end of the supply rolls to the other.



Figure 41. Attaching mounting adhesive (on bottom) to the PSA.

10. Lower the Upper Main Roller just enough to make contact with the Bottom Main Roller.



Figure 42. Upper and lower films attached to each other.

11. Lower the Feed Table and remove the Pressure Plate.
12. Press a threading card into the nip of the Main Rollers, pushing the media into the nip.

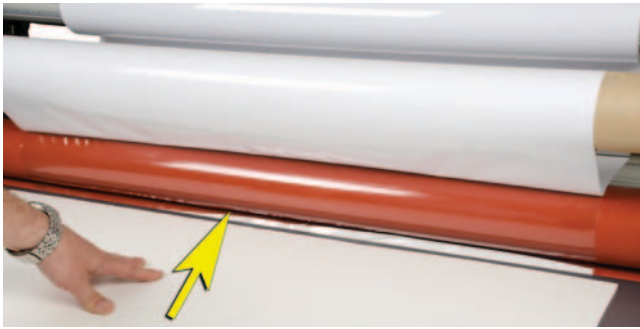


Figure 43. Pressing a threading card into the nip.

13. Press the Footswitch and guide the film to the Main Rollers.
14. Adjust the Rewinder tension so that the release liner does not pull into the nip area.
15. Use the Upper and Lower Unwind Tension Knobs to apply minimum braking to the shafts.
16. Raise the Upper Main Roller and press the Footswitch to smooth out wrinkles in the film.
17. Install the Pressure Plate.

WEBBING FILM BY TACKING NEW FILM TO EXISTING FILM

The following describes a method for threading film whereby the existing film on the rollers may be used in place of the threading card to draw the new film through the laminator. Leading edges of the new film will be overlapped onto the adhesive of the old film. The existing film and the new film will be pulled through the laminator together.

WARNING: Rollers may be hot. Hot rollers could burn you. Take care not to touch rollers while removing, loading, or changing film.

Caution: Press **STOP** to ensure the machine is not running.

NOTE: In the following illustrations, depending on the laminator model, you may or may not have Pull rollers and the Feed Table either pivots or is removable.

To tack new film to existing film:

1. Press **STOP**.
2. Remove the Pressure Plate. Refer to the “Removing the Pressure Plate” section.
3. Raise the Feed Table. Refer to “Raising the Feed Table” section.

WARNING: Raising the Feed Table exposes moving parts. This means you can be harmed when the Feed Table is raised. Make sure to lower the Feed Table when film loading is completed.

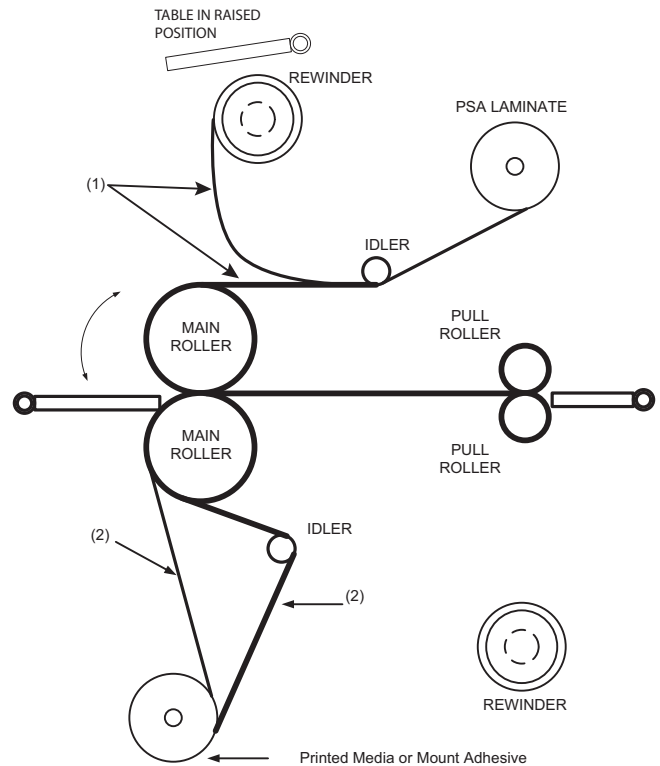


Figure 44. Cutting remaining web diagram.

CAUTION: Be careful to not cut the rollers.

4. Carefully cut the remaining top film between the idler bar and the Main Roller (1). Carefully cut the film web between the lower film supply and the idler bar (2).
5. Do not allow the adhesive side of the film to contact the Main or Pull Rollers.
6. Replace both the top and bottom rolls of film with new rolls. Ensure the adhesive side is facing out.
7. Pull the bottom media around the idler bars, with the exception of PSA mounting adhesives without a release liner, and attach to the existing web.
8. Web the top roll of film under the idler bar and tack the roll of film to the upper rewind tube.
9. Carefully cut the film without cutting the release liner.

- Attach the film to the existing web on the Main Rollers.
Make sure to carefully align the edges of the films before tacking them together.

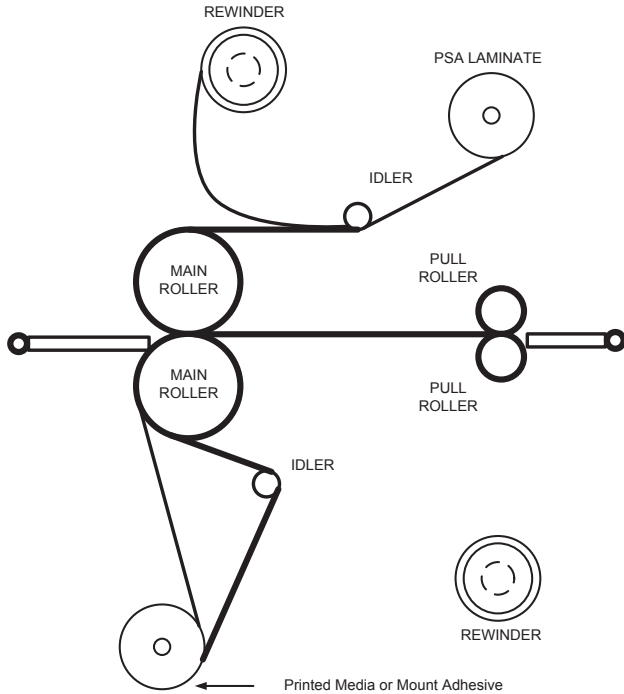


Figure 45. New films tacked to old films diagram.

- Lower the Feed Table and install the Pressure Plate.
- Replace the Pressure Plate.
- Use the Footswitch to advance the film into the Main Rollers.
- Observe the film being pulled through the laminator to assure that the remaining film and the new film are advancing concurrently. Any separation between the films will require stopping the motor immediately and the situation corrected.
- Release the Footswitch once the newly threaded film has completely exited the Pull Rollers.
- Check the film alignment and adjust the tension if needed.
See the “Film Alignment” section.

REMOVING THE WEB

Remove the film when changing film types, widths, cleaning the rollers, or are finished using the laminator.

Caution: Press **STOP** to ensure the machine is not running.

To remove the web:

- Press **STOP**.
- Remove the Pressure Plate.
Refer to the “Removing the Pressure Plate” section.
- Raise the Feed Table.
Refer to the “Raising the Feed Table” section.

WARNING: Raising the Feed Table exposes moving parts. This means you can be harmed when the Feed Table is raised. Make sure to lower the Feed Table when film loading is completed.

- Using a sharp knife, cut the output from the web (1).

CAUTION: Be careful to not cut the rollers.

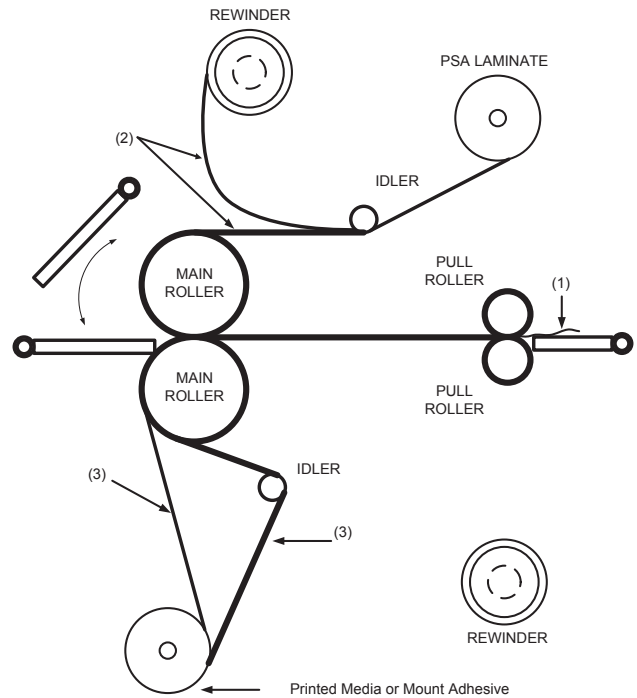


Figure 46. Cutting film from the laminator diagram.

- Carefully cut the remaining top film web and release liner between the idler bar and Main Roller (2).
- Carefully cut the film web between the lower film supply and the idler bar (3).

CAUTION: Be careful to not cut the rollers.

- Adjust the gap of the Rollers.

- Carefully grab the web (top and bottom film), from the front operating position and pull towards you.

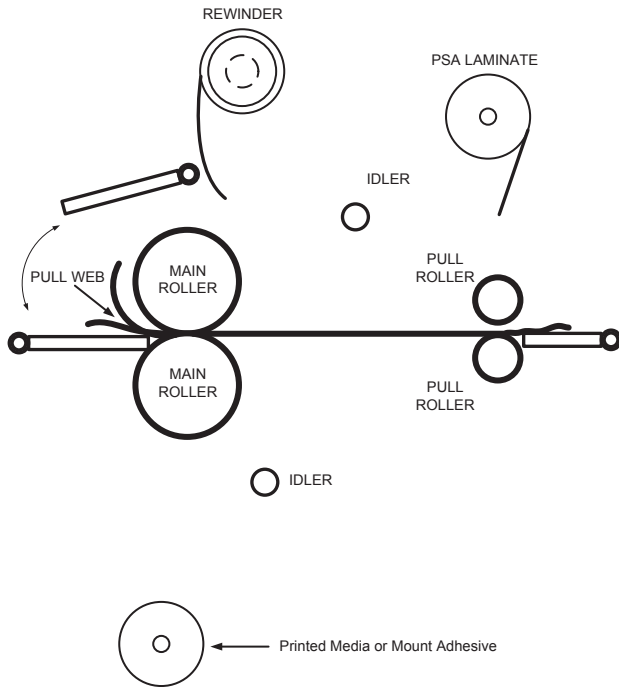


Figure 47. Pulling remaining web from the laminator diagram.

- Do not allow the adhesive side of the film to contact the Main or Pull Rollers.

CLEAR 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 can wrap around the Main or Pull Rollers during webbing if a threading card is not used.

To clear a jam (wrap-up):

- Immediately stop the laminator by pressing **STOP**.
- Press and hold **REV** while pulling on the web.
- Manually guide the web out of the Main and Pull Rollers.

WARNING: Rollers may be hot. Hot rollers could burn you. Keep fingers and hands away from the hot rollers.

- Once the film jam has been cleared, re-thread the film web. Refer to the “Webbing the Machine” section.

PRECOATING MOUNT BOARDS

Use this process to precoat the front of substrates with pressure-sensitive adhesive (PSA). Precoated boards are useful for mounting graphics that will not be laminated. Examples include photographs, POP signage, and presentations.

NOTE: In the following illustration, depending on the laminator model, you may or may not have Pull rollers and the Feed Table either pivots or is removable.

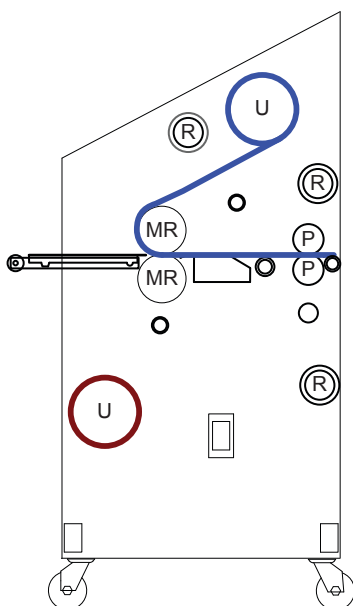


Figure 48. Precoat mount board diagram.

To precoat mount boards with PSA:

1. Press **STOP**.
2. Load a roll of PSA on the top Unwind Shaft.
3. Set the main roller gap to the thickness of the substrate.
4. Pull the PSA and drape it over the top Main Roller past the nip of the Main Rollers.
5. Press a threading card into the nip of the Main Rollers, pushing the PSA into the nip.
6. Press the Footswitch and guide the film through the Main Rollers.
7. Use the Upper Tension Knob to apply minimum braking to the Unwind shaft.
8. Raise the Main Rollers and press the Footswitch to smooth out wrinkles in the film and adjust tensions as needed.
9. Press **RUN** and begin feeding the substrates into the laminator.

TIPS

- This process can be performed at any speed.
- Leave small gaps between each substrate as you feed them into the laminator to make it easier to separate them.
- The job is easier with two people; one to feed the substrates and one to separate them as they exit the laminator.

PRESSURE SENSITIVE DECALLING

Use this process to apply a laminate and a pressure-sensitive adhesive (PSA) to a graphic at the same time. This is commonly referred as a decal and it makes a sticker out of the graphic. After this process is completed, the graphic can be mounted to whatever substrate based on the application and the type of mount adhesive used.

Examples include POP and window signage, counter top graphics, and cooler signage.

Caution: Press **STOP** to ensure the machine is not running.

NOTE: In the following illustration, depending on the laminator model, you may or may not have Pull rollers and the Feed Table either pivots or is removable.

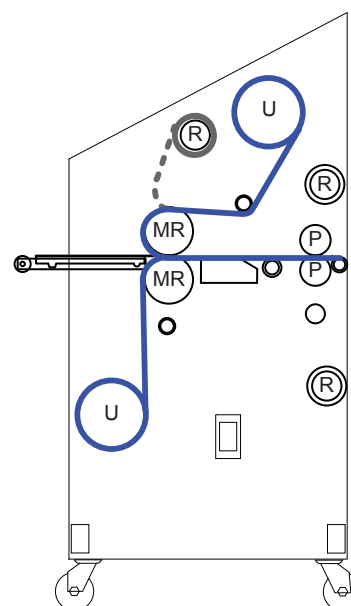


Figure 49. PSA decalling diagram.

To decal a graphic:

1. Load a roll of PSA laminate on the top Unwind roller.
2. Load a roll of PSA mount on the bottom Unwind roller.

3. Refer to “Pressure Sensitive Mounting - Decal - Front” for step-by-step instructions.

TIPS

- When taping film liner to the Rewind Tube, use only one piece of tape to allow the film to shift if necessary and it is easier to remove the liner later.
- When webbing the top laminate, make sure the edges of the laminate line up from the unwind to the laminate roller to ensure the materials feed straight.
- **ALWAYS RELEASE ALL TENSION BRAKES, BOTH UPPER UNWIND AND REWIND, BEFORE LOADING THE FILM. ONCE LOADED, START BY ADDING TENSION TO THE REWIND FIRST.**
- If the laminate starts to follow the release liner toward the rewind, either reduce tension on the rewind or increase tension on the unwind. If the release liner follows the laminate into the laminating rollers, increase tension on the rewind.
- The use of the Pull Rollers is optional. Using them will help pull the material out of the back of the laminator. Reduce the clutch tension if using them. This prevents stretching the laminate and helps reduce curl.

PRESSURE SENSITIVE MOUNTING - DECAL - FRONT

Use this process to mount a decal to a substrate. Examples include POP signage, rigid outdoor and indoor signs, and presentation graphics.

NOTE: In the following illustration, depending on the laminator model, you may or may not have Pull rollers.

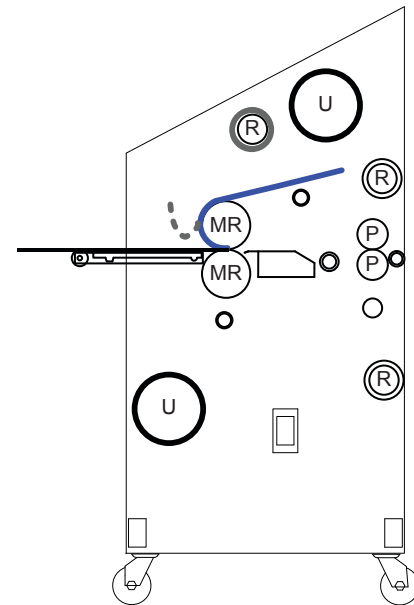


Figure 50. PSA mounting diagram.

To decal a graphic:

1. Press **STOP**.
2. Set the Main Roller gap to the thickness of the substrate.
3. Pull 1 to 2 inches (25 to 51 mm) of release liner off the decal and then slightly crease and place on the substrate with the adhesive facing the substrate.
4. Line the decal up with the edges of the board and then starting in the middle, tack the leading edge of the decal to the substrate.
5. Insert the board into the roller nip, making sure it is entering the rollers straight.
6. Using the Footswitch, feed the board into the rollers to the point where the liner separates from the decal.
7. Place the decal over the top of the roller and through towards the back of the machine.
8. Place one hand on top of the roller to hold the decal, and with the other hand, grab the release liner.

9. Press the Footswitch.
10. As the materials feed into the rollers, pull the release liner off the decal.
11. Continue until the decal and substrate exits the rollers.

TIPS

- For larger graphics, a second person at the back of the laminator can help apply tension to the decal. This frees up the person in the front of the laminator to clean up materials and handle the release liner.
- If the release liner gets caught in the rollers, stop the laminator and reverse the materials out of the rollers until you can pull out the release liner.
- Do not allow the materials to stop under the pressure of the rollers for any extended time. This can cause indentations on softer substrates.

PRESSURE SENSITIVE MOUNTING - PRECOAT - FRONT

Use this process to mount a graphic to a precoated substrate.

Examples include POP signage, legal graphics, photographs, and presentations.

NOTE: In the following illustration, depending on the laminator model, you may or may not have Pull rollers.

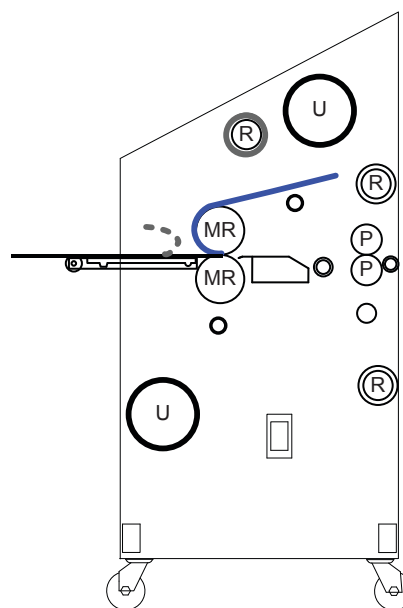


Figure 51. PSA mounting precoat diagram.

To mount a graphic:

1. Press **STOP**.
2. Set the Main Roller gap to the thickness of the substrate.
3. Pull 1 to 2 inches (25 to 51 mm) of release liner off the substrate.
4. Line the graphic up with the edges of the board and then starting in the middle, tack the leading edge of the graphic to the substrate.
5. Insert the board into the roller nip, making sure it is entering the rollers straight.
6. Using the Footswitch, feed the board into the rollers to the point where the liner separates from the substrate.
7. Place the graphic over the top of the roller and through towards the back of the machine.
8. Place one hand on top of the roller to hold the graphic, and with the other hand, grab the release liner.

9. Press the Footswitch.
10. As the materials feed into the rollers, pull the release liner off the substrate.
11. Continue until the graphic and substrate exits the rollers.

TIPS

- For larger graphics, a second person at the back of the laminator can help apply tension to the graphic. This frees up the person in the front of the laminator to clean up materials and handle the release liner.
- If the release liner gets caught in the rollers, stop the laminator and reverse the materials out of the rollers until you can pull out the release liner.
- Do not allow the materials to stop under the pressure of the rollers for any extended time. This can cause indentations on softer substrates.

THERMAL LAMINATION

Use this process to encapsulate images between two thermal films.

Examples include menus, posters, and photos.

NOTE: In the following illustration, Pull rollers are required.

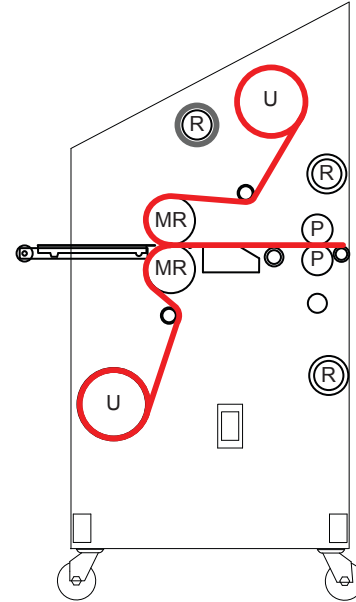


Figure 52. Thermal lamination diagram.

To laminate an image:

1. Press **STOP**.
2. Load a roll of thermal laminate on the top Unwind roller.
3. Load a roll of thermal laminate on the bottom Unwind roller.
4. Pull the top laminate under the Idler toward the front of the laminator and then drape it over the top Main Roller.
5. Remove the Pressure Plate.
Refer to the “Removing the Pressure Plate” section.
6. Raise and secure the Feed Table.
7. Pull the bottom laminate behind the bottom Idler and back up to the Main Rollers.
8. Line up the edges of the two laminates and attach them together.
9. Lower the Main Rollers just enough to make contact with each other.
10. Lower the Feed Table and remove the Pressure Plate.

11. Press a threading card into the nip of the Main Rollers, pushing the laminates into the nip.
12. Press Run and guide the laminates to the Main Rollers.
13. After the threading card exits the Main Rollers, lower the rollers, and adjust the film tension as needed.
14. Press **STOP** and check the quality of the lamination.
15. Press **Run** and proceed with the lamination.

TIPS

- Make sure the upper and lower films are aligned to reduce the adhesive getting on the rollers.
- Only run the laminator as fast as the heat can recover. Speeds vary from one film thickness to the other.
- Fans can be used if the laminate needs to be cooled while exiting the Pull Rollers.
- Adjust the Pull Roller clutch and brakes to fine-tune the output.
- Sometimes it is easier to insert a piece of media that will go all the way through both sets of rollers. Tack the trailing edge to the film, lower the rollers, and then press **RUN**.

CUSTOM APPLICATION NOTES

Use the space below and blank diagrams to note your tips and web paths for your custom applications.

TIPS FOR CUSTOM APPLICATION #1

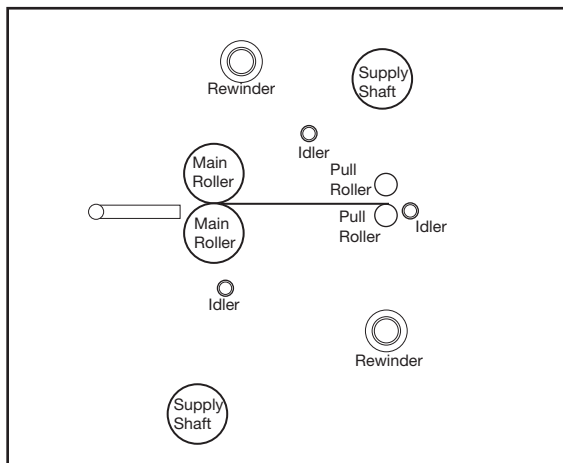


Figure 53. Custom application 1.

- 1.
- 2.

- 3.
- 4.

TIPS FOR CUSTOM APPLICATION #2

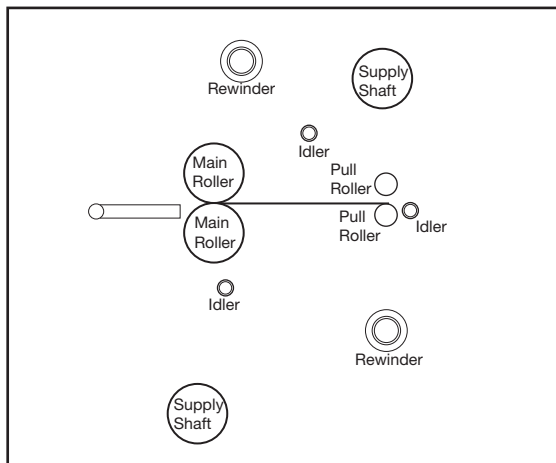


Figure 54. Custom application 2.

- 1.
- 2.
- 3.
- 4.

TIPS FOR CUSTOM APPLICATION #3

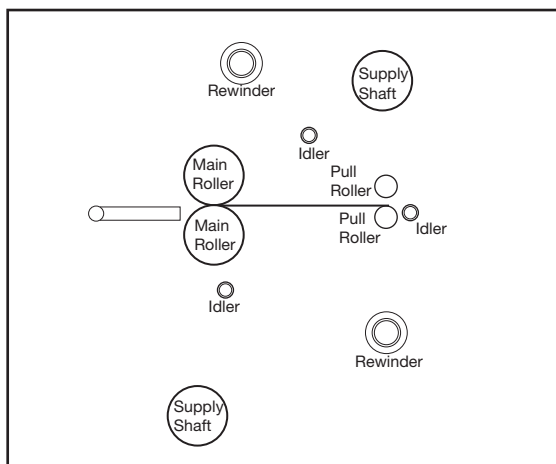


Figure 55. Custom application 3.

- 1.
- 2.
- 3.
- 4.

FILM ALIGNMENT

The top and bottom supply rolls must be aligned as closely as possible. Misalignment can cause adhesives to stick to the rollers. The 3 inch Extruded AUTOGRIP Shafts have rulers incorporated to assist centering the film on the shafts.

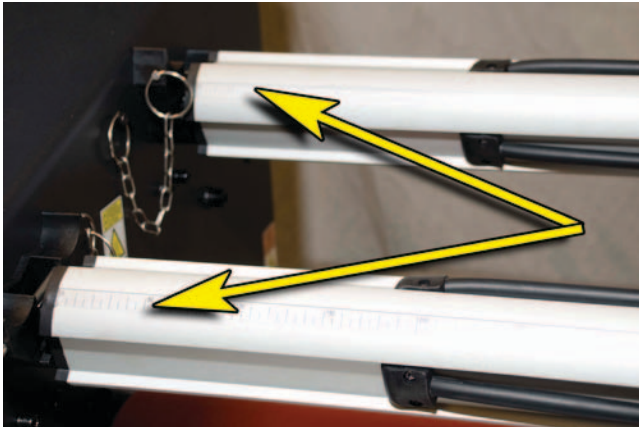


Figure 56. Measuring rules on Shafts to align the rolls.

To align the supply rolls:

1. With the film roll on the shaft, note the measurement on each end of the shaft.
2. Shift the roll side to side to ensure that the two measurements are equal.

FILM TENSION

Proper film tension, known as brake tension, is the minimum amount required to eliminate wrinkles in the finished item. As the film roll becomes smaller, tension increases, thus the adjustment needs to be loosened. Film tension should be checked occasionally to ensure that the adjustment is correct.

The film should be taut with no gaps between the film and Main Rollers. 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. Too much lower tension creates downward curl.

Refer to the “” section for information about each of the Adjustment knobs.

ALWAYS RELEASE ALL TENSION BRAKES, BOTH UPPER UNWIND AND REWIND, BEFORE LOADING THE FILM. ONCE LOADED, START BY ADDING TENSION TO THE REWIND FIRST.

TESTING THE WEB

After webbing the machine, it is important that the films run straight and evenly.

To test the web:

1. Set the Roller Pressure Crank to an appropriate gap.
2. Press **RUN** on the Control Panel or press the **Footswitch** and run approximately 6 in. (10 cm) of laminate.
3. Press **STOP** or release the **Footswitch**.
4. Visually inspect the top and bottom films where they enter the point between the two Main Rollers.
The films should be tight against the rollers at both ends. If they are not, use the tension adjustment knobs to tighten the loose supply film brake and run another test.
5. Ensure that the release liner take-up keeps the liner loose against the idler bar.
Use the upper film supply tension knob to properly tension the release liner.
6. Run test materials before laminating good materials.

LAMINATION GUIDE

This manual provides general guidelines and is only a general reference guide. Different settings may be suitable as the lamination time and materials change. Test materials before running good materials through the machine.

- Do not attempt to laminate abrasive or metal objects such as staples, paper clips and glitter, as they may damage the rollers.
- Do not force items into the point between the two Main Rollers. An item that is not easily drawn into the laminator by the 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 rollers.
- Do not stop the laminator before an item has completely exited the Main Rollers. Even a momentary stop may cause a mark on the laminated item.
- Good, consistent lamination is a result of combining proper tension and roller pressure.
- Do not combine thick and thin items at the same time, as this will result in a poor edge seal around the thinner material.



7. OPERATOR MAINTENANCE

CARING FOR THE SPIRE SERIES LAMINATOR

The only maintenance required by the operator is to periodically clean the rollers. The following procedure will help keep the rollers free of dirt and adhesive, which has been deposited along the edge of the laminating film. Proper alignment of the rolls of film reduces the amount of adhesive on the rollers. Perform only the routine maintenance procedures referred to in these instructions.



WARNINGS:

- Do not attempt to service or repair the laminator. Do not open the laminator. There are no user serviceable parts inside. Refer service to qualified service personnel.
- Keep fingers, hands clothing, jewelry, and long hair away from the rollers. Clothing, jewelry and long hair could be caught in the rollers and pull you into them.
- Entrapment hazard. Do not operate when alone. More than one person is required to be in the area when operating the machine.
- Do not lift, tilt, or attempt to move the laminator other than rolling it on its castors across flat, even surfaces. You can be severely injured or crushed.

Failure to observe these warnings could result in severe personal injury or death.

CAUTIONS:

- Do not apply any cleaning fluids or solvents to the rollers. Some solvents and fluids could damage the rollers.
- Do not allow foreign objects to fall into the working area of the laminator.

Failure to observe these cautions could result damage to the machine.

CLEANING THE ROLLERS

Keeping the rollers clean ensures that your finished items will not be damaged by dirt and adhesives. Clean the rollers with a clean, damp lint-free cloth. If there are any adhesive build ups, you may use isopropyl alcohol instead of water.

- Never clean rollers with abrasive, sharp, or pointed objects.
- Do not use any other cleaning agents other than those listed above.
- Accumulated adhesive deposits on the rollers can cause damage to the rollers. Rotate the rollers at the lowest speed setting on the control panel. Press Stop and clean the exposed surface of the Rollers. Repeat this process to clean the remaining Roller surfaces.

To clean the rollers and idler bar:

1. Remove the Pressure Plate and raise the Feed Table. Refer to “Pressure Plate” and “Raising the Feed Table” sections.



WARNING: Raising the Feed Table exposes moving parts. This means you can be harmed when the Feed Table is raised. Make sure to lower the Feed Table when cleaning is completed.

2. Remove the film from the laminator. Refer to *the “Removing the Web”* section.
3. Use the dampened cloth to remove any dust, dirt, and other foreign materials from the rollers.
4. Press and release the Footswitch to rotate the rollers to an unclean portion. Be sure to remove all adhesive and dirt.



WARNING: Keep fingers, hands pad, and rag away from the Rollers when the machine is running.

5. Lower the Feed Table and install the Pressure Plate.



TROUBLESHOOTING

Symptom	Possible Cause	Corrective Action
LCD does not illuminate on the control panel when the ON/OFF switch is in the ON position.	Laminator not connected to electrical supply.	Insert attachment plug into receptacle.
	Blown fuse.	Contact your dealer, distributor or Technical Service for assistance.
Rollers do not turn.	Photo Safety Sensors blocked.	Unblock Photo Safety Sensors.
	Feed Table Interlock Latch not in place.	Reseat Interlock Latch all the way down until the micro switch activates.
	STOP LED flashing.	Press STOP .
Laminated items are curling.	Tension between the top and bottom film roll is unequal.	Adjust tension per “Film Tension” section.
	Speed setting too slow.	Slightly speed up laminator.
Adhesive deposited on rollers.	Top and bottom film webs not aligned.	Align film webs per “Film Tension” section.
	Laminate improperly loaded.	Load film per “” section.
Unsatisfactory laminate adhesion.	Insufficient roller pressure.	Adjust the roller pressure.
	Laminate improperly loaded.	Load film per procedure outlined per “” section.
	Rollers require cleaning.	Clean rollers per “Cleaning The Rollers” section.
	Laminated item unsuitable for adhesion.	Item may be dirty or may have non-porous surface that is extremely difficult to laminate.

WEEE STATEMENT

At the end of its useful life, your product is considered to be Waste Electrical and Electronic Equipment (WEEE). As such, it is important to note that:

- WEEE is not to be disposed of as unsorted municipal waste. It is to be collected separately such that it can be disassembled so its components and materials can be recycled, re-used, and recovered (burned for energy content in electricity production).
- Public collection points have been set up by municipalities for the collection of WEEE, free of charge to you.
- Please return your WEEE to the collection facility nearest your home or office.
- If you have difficulty locating a collection facility, the retailer that sold you the product should accept your WEEE.
- If you are no longer in contact with your retailer, please contact ACCO for assistance with this matter.
- Recycling of WEEE is geared toward protecting the environment, protecting human health, preserving raw materials, improving sustainable development, and ensuring a better supply of commodities in the European Union. This will be achieved by retrieving valuable secondary raw materials and reducing the disposal of waste. You can contribute to the success of these goals by returning your WEEE to a collection facility.
- Your product is marked with the WEEE symbol (wheelie bin with an X through it). This symbol is to inform you that WEEE is not to be disposed of as unsorted municipal waste.





GLOSSARY OF TERMS

The terms listed here appear in this manual or are commonly used in the normal use of laminators.

Term	Definition
Decal	Media that has an overlaminate on the front and a mount adhesive on the back.
Film	Adhesive material that is applied to a substrate or media.
Gap	The space between two rollers.
In-feed	The side of the laminator where media is fed into the machine to be laminated.
Media	The material or images to be laminated.
Mounting	The process of applying media to a rigid, flat surface.
Nip	The point between two rollers.
Out-feed	The exit side of the laminator where the finished product emerges
PSA	Pressure-sensitive adhesive that bonds the film to the media being laminated with pressure.
Release liner	A backing of a PSA film that prevents the film from sticking to itself.
Threading card	A stiff cardboard or foam board that is used to assist webbing the machine.
Webbing	The process of loading laminating and mounting films into the laminator.







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