

ML13 & ML25 Manual Laminators



The ML13 and ML25 are manual table-top laminators that are designed for mounting and laminating graphics. They are excellent tools for teaching the basics of professional finishing and are compatible with pressure sensitive mounting adhesives and overlaminating films, which are applied to graphic images by processing them through the rollers. The ML13 and ML25 are used by small photo studios or copy shops that want to quickly mount or laminate small pieces. Their simple, durable construction make them easy to use and deliver excellent results. The ML13 and ML25 fold up for easy storage and transport, and include a media guide that allows graphics to be supported during processing.

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Overview

Thank you for purchasing a Drytac® ML13 or ML25 manual laminator. The information contained in this Operator's Manual will explain the basic methods of mounting and laminating graphics with these easy-to-use laminators.

ML13 & ML25 Technical Specifications		
	ML13	ML25
Max Laminating Width	13.5" (343mm)	25.5" (648mm)
Roller Diameter	2.5" (63mm)	2.5" (63mm)
Width	15.375" (390mm)	27.375" (695mm)
Depth	24.5" (622mm)	24.5" (622mm)
Height	10.25" (260mm)	10.25" (260mm)
Weight	24 lbs (11 kg)	31 lbs (14 kg)
Max Board Thickness	1" (25mm)	1" (25mm)

Warranty

Every Drytac machine is designed and manufactured to provide years of dependable service. To achieve the best results, the machine should be set up and operated in accordance with the instructions provided in its corresponding Operator's Manual.

Our equipment warranty covers parts for twelve (12) months from the date of purchase. Rollers are guaranteed against manufacturing defects for three (3) months.

Return your warranty card to Drytac as soon as possible. By doing so, we will be able to more efficiently address your concerns in the unlikely event that you encounter an issue. You will find a section in the Operator's Manual for recording this important information and for noting any future parts or service requests.

Normal wear and tear, damage to the rollers, and damage due to abuse, improper operation or installation is not covered by this warranty. Conditions that will void the warranty include, but are not limited to:

- Failure to follow the instructions contained in the Operator's Manual
- Unauthorized changes or modifications to the equipment
- Misuse of the equipment for purposes other than specified in the Operator's Manual

Drytac will not be held responsible for any damage or consequential damage caused by the equipment. After the warranty period has expired, Drytac will provide all reasonable product assistance and support to resolve any problems that may arise.

Before calling the Drytac Technical Services department, note the Registration Information for your machine and have it available for reference.

Registration Information

ML13 and ML25 Manual Laminator Registration Information

COMPANY NAME: _____

ADDRESS: _____

CITY, STATE, ZIP: _____

MODEL #: _____

SERIAL #: _____

PURCHASE DATE: _____

WARRANTY CARD RETURN DATE: _____

BY: _____

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Important Safety Information

Before operating the ML13 or ML25 for the first time, read and understand the following safety-related information. Failure to follow these procedures may result in serious personal injury and/or damage to the equipment and materials being used.

The ML13 and ML25 perform mounting and laminating applications by using two rollers to apply uniform pressure to mounting adhesives and overlaminating films. The point where the rollers touch these materials is called the "Nip". This area creates a potential pinch hazard for fingers or other objects. **TO AVOID INJURY, ALWAYS KEEP YOUR FINGERS AWAY FROM THE NIP AREA.**

Remove any jewelry such as rings, bracelets and necklaces prior to operating the equipment. Keep loose clothing, neckties, artificial fingernails, long hair, and anything else that might easily be drawn into the rollers away from the machine.

Setup Procedures

Unpacking and Installation

Upon receipt of your new ML13 or ML25, inspect the carton(s) carefully for signs of physical damage or mishandling. Report any damage to the shipping company immediately and contact the Drytac Customer Service department. If there is no apparent damage, proceed with unpacking.

Install the four (4) Rubber Feet on the bottom of the Infeed/Outfeed Table and pull out the hand crank of the Processing Wheel on the bottom roller shaft. Select a clean, well-lighted work area that allows access to both the front and back of the machine. Position the machine on a level, sturdy surface that can support its weight and is at an optimum working height for the operator. Refer to the Technical Specifications Chart on page 1 for individual weight and size dimensions.

Parts Identification



Equipment Parts	
A	Left Height Adjustment Knob
B	Processing Wheel
C	Right Height Adjustment Knob
D	Infeed/Outfeed Table
E	Media Guide
F	Rubber Foot

Processing Wheel: A hand crank located on the side of the machine. Used to turn the roller and process material through the machine.

Height Adjustment Knobs: Knobs located on the left and right sides of the top of the machine. Used to adjust the top roller height and pressure. Rotate the knobs clockwise to lower the top roller and counter-clockwise to raise it. To properly adjust pressure, refer below to *Setting Roller Pressure*.

Infeed/Outfeed Table: Fold-up table located on the front and rear of the machine.

Media Guide: Guide located on the top roller that holds the graphic on the roller during mounting and lamination.

Rubber Feet: Located on the bottom of the Infeed/Outfeed Table to provide a level surface during mounting and lamination.

Setup Procedures

Setting Roller Gap and Pressure

The Height Adjustment Knobs on either side of the ML13 or ML25 control the height of the top roller. Rotate both counter-clockwise to raise the top roller and increase the gap at the Nip area where the rollers meet. Rotate the knobs clockwise to decrease the gap and increase the pressure. To establish a gap for a specific mounting board or carrier board, complete the following steps:

1. Rotate both Height Adjustment Knobs counter-clockwise to raise the top roller.
2. Slide a section of the mounting board or carrier board into the roller Nip area.
3. Rotate both Height Adjustment Knobs clockwise to lower the top roller until it makes light contact with the mounting board.
4. Crank the Processing Wheel counter-clockwise to back the board out of the roller Nip area.
5. For optimal results, rotate both Height Adjustment Knobs approximately 1/8 of a turn clockwise to slightly lower the roller (after the board has been removed).

NOTE:

Applying too much pressure may damage the machine or the material being used. Do not overtighten the Height Adjustment Knobs.

Mounting Applications

Selecting Mounting Board and Adhesive

Selecting the proper mounting board/substrate is very important. Common materials that can be used are:

- Foam board - FomeCor®, GatorBoard®, HartBoard®, etc.
- Illustration board
- Rag board
- Medium Density Fiberboard (MDF)
- Corrugated plastic board - CoroPlast®
- Rigid plastic board - Sintra®, Styrene, etc.
- Tempered hardboard - Masonite®

Once the mounting board has been selected, determine whether to pre-coat it with adhesive or purchase pre-cut and pre-coated boards. While the use of pre-cut, pre-coated boards will save time, coating your own mounting board is more economical and allows for maximum flexibility in terms of sizing and substrate selection.

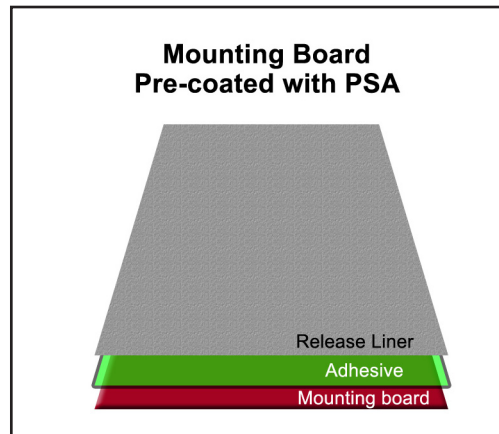
Pre-Coating Mounting Board

Pre-coating the mounting board means applying a mounting adhesive to one side of the board so that a graphic image can be mounted to the board later.

1. Adjust the rollers for proper pressure.
2. Cut an appropriate size sheet of double-sided mounting adhesive for the application. An adhesive with a release liner on both sides may be easier to use because the adhesive is not exposed.
3. Pull back the release liner on one side of the adhesive and "tack" (stick or press down) about 4" (102mm) to the leading edge of the mounting board.
4. While supporting the release liner, align the mounting board to the roller Nip area. Push the board into the rollers and process the board and adhesive through the rollers by cranking the Processing Wheel. Try to maintain a slow, steady speed.
5. Trim the excess adhesive off of the board.
6. The mounting board is now pre-coated with pressure sensitive adhesive (PSA), which is still protected by the release liner. The pre-coated board can be used for immediate mounting or stored for future use.

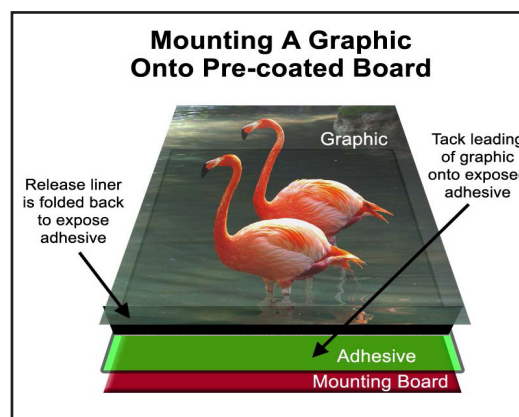
TIP:
When a graphic image is going to be laminated with a gloss overlaminating film, the use of very smooth substrates with glossy surfaces (such as Masonite®) is preferred. This will minimize the effect of board imperfections (i.e., "orange peel") in the finished product.

Mounting Applications



Mounting Graphics to Pre-Coated Boards

1. Adjust the rollers for proper pressure.
2. Expose the adhesive on the board by folding back approximately 1" (25mm) of the release liner.
3. Using the folded-back release liner as a temporary support bridge, align the graphic image onto the board and proceed to "tack" (stick or press down) the leading edge of the graphic onto the exposed adhesive.
4. Square the mounting board with the tacked graphic against the rollers and drape the graphic over the top roller.
5. Run the mounting board/adhesive/graphic image through the rollers while simultaneously pulling the release liner away from and off of the board.



Laminating Applications

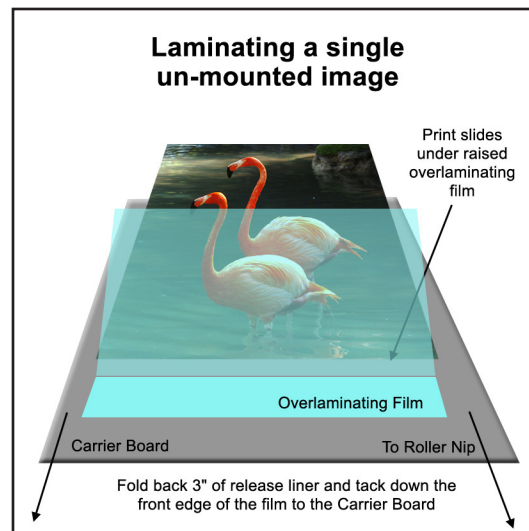
Selecting Pressure Sensitive Overlaminating Film

Select an appropriate pressure sensitive overlaminating film for the surface of the graphic image based on aesthetics and the conditions under which it will be displayed. Drytac offers a wide variety of films to match your specific output and application. Consult the Drytac Product Reference Guide for descriptions of available overlaminating films or visit www.drytac.com.

To prevent adhesives from sticking to the rollers and to provide a reusable, standard working surface during lamination, the use of a silicone-coated board (also known as a "Carrier Board") is highly recommended. For instructions, refer to page 11.

Laminating Single Unmounted Image

Before processing, make sure that the graphic image is clean and free of dust or specks of lint. An anti-static cloth or anti-static wisk is recommended for cleaning the graphic prior to lamination.



1. Raise the top roller and insert the Carrier Board. Set roller pressure as previously described.
2. Pre-cut a sheet of overlaminating film from the roll. The sheet should be larger than the graphic image by approximately 1" (25mm) on the bottom and each side and 2" (50mm) on the top.
3. Peel and fold back approximately 2" (50mm) of release liner from the top edge of the overlaminating film. Tack the film on the Carrier Board by pressing the exposed section of film onto the leading edge of the board.
4. Advance the Carrier Board into the machine by turning the Processing Wheel clockwise. Stop before the edge of the overlaminating film reaches the rollers.

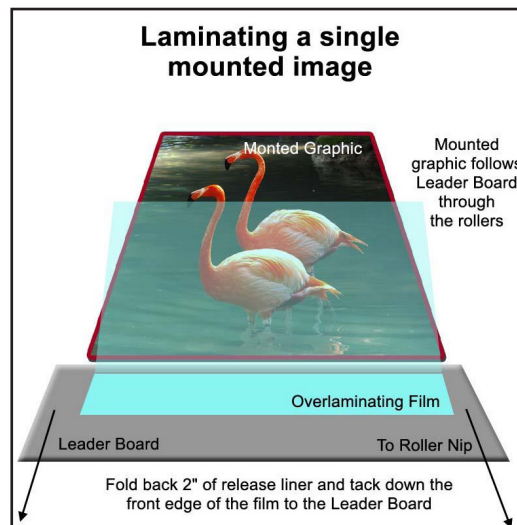
Laminating Applications

Laminating Single Unmounted Image cont.

5. Lift up the remainder of the overlaminating film (which is still protected by the release liner) and slide the graphic image face underneath it. Stop before it makes contact with the exposed part of the adhesive. It is important to keep the film adhesive away from the graphic until the whole assembly is under pressure and traveling through the machine.
6. Lay the overlaminating film over the top of the upper roller. While holding up the edge of the peeled back release liner with one hand, start the rollers and apply the overlaminating film to the surface of the graphic. Pull up and away on the release liner as your graphic travels through the machine. Ensure that the release liner does not reach the point where the graphic makes contact with the top roller. Complete this step with a consistent motion and do not stop until the entire graphic has passed through the rollers.
7. The laminated graphic can now be easily removed from the silicone-coated Carrier Board for trimming and mounting.

Laminating Single Mounted Image

Before processing, make sure that the graphic image is clean and free of dust or specks of lint. An anti-static cloth or anti-static wisk is recommended for cleaning the graphic prior to lamination.



1. Raise the top roller and insert the mounted graphic image into the roller Nip area. Adjust the roller pressure.
2. Pre-cut a sheet of overlaminating film from the roll. The sheet should be larger than the graphic image by approximately 0.25" (6mm) on the bottom and each side and 3" (75mm) longer on the top.
3. Peel and fold back approximately 2" (50mm) of release liner along the bottom edge of the Leader Board, exposing the adhesive of the overlaminating film.
4. Tack approximately 1.5" (38mm) of the film to the Leader Board but not over the mounted graphic.

Laminating Applications

Laminating Single Mounted Image cont.

5. Insert the Leader Board with the overlaminating film tacked to it into the Nip area, keeping it parallel to the rollers. Advance the Leader Board and the film through the Nip area until the upper roller securely pinches the film. The trailing edge of the Leader Board should be at the pinch point of the rollers.
6. Lay the overlaminating film over the top of the upper roller. Ensure that the folded release liner is easily accessible.
7. Slide the mounted graphic image into the Nip area and allow its edge to make contact with the edge of the Leader Board.
8. While holding up the folded edge of the peeled back release liner with one hand, turn the Processing Wheel clockwise, advance the rollers and apply the overlaminating film to the surface of the graphic image. Pull up and away on the release liner as the graphic advances to ensure that the liner does not reach the Nip area. Use a consistent motion and do not stop until the entire graphic has passed through the rollers.
9. Trim excess overlaminating film from the edges of the graphic.

Using a Leader Board

A Leader Board is recommended when mounting and laminating with the ML13 and ML25 because it helps set proper pressure prior to the application. It is first fed into the roller Nip area, then followed by the actual mounting/laminating material to be processed. The Leader Board should be the same width and thickness as the production mounting board and about 6-8" (152-203mm) long.

Carrier Boards and Preparing Mounting Board

When processing unmounted graphic images, it is recommended that a silicone-coated board be used to prevent adhesives from sticking to the rollers. This board is known as a Carrier Board and provides a reusable, standard working surface. The Carrier Board can be used when laminating a graphic image prior to it being mounted to a mounting board/substrate. To accommodate various artwork formats, it is common practice for finishing professionals to stock Carrier Boards in several sizes.

Making a Carrier Board is similar to pre-coating a mounting board. When the mounting board is coated with adhesive, the silicone-coated release liner provides a slick, non-stick surface on which to laminate graphic images. Be sure to use a "self-wound" adhesive with a silicone-treated liner for this purpose. Once the most appropriate adhesive/mounting board combination has been selected for the application, the board must be properly prepared before coating. Although often overlooked, this can be the most important step when mounting a graphic image for display.

Laminating Applications

Carrier Boards and Preparing Mounting Board cont.

- *Foam board* (e.g., FomeCor®, GatorBoard®, HartBoard®, etc.) - These substrates have porous surfaces and often contain particles that can spoil an otherwise perfect mount. Clay-coated surfaces such as FomeCor® or Foam-X® should be wiped with a TacCloth™ to remove dust particles.
- *Mat board/Mill board* - To prepare these boards for mounting, use an anti-static wisk to remove dust particles and other debris.
- *Hardboard* (e.g., Medium Density Fiberboard (MDF), Masonite®, etc.) - To prepare these substrates for mounting, wipe the surface with a TacCloth™. If the surface contains irregularities, use sandpaper to remove them and then wipe the surface with a TacCloth™.

NOTE:

Due to the highly absorbent nature of these substrates, DO NOT wipe down their surfaces with a moist rag.

Care & Maintenance

Cleaning the Rollers

The rollers on the ML13 and ML25 are made of rubber. They require proper cleaning prior to use and on a regular basis. Alcohol, strong chemicals and solvents **SHOULD NOT** be used on the rollers. Materials needed to clean the rollers include:

- Vinegar
- Dawn® dishwashing liquid
- Clean cotton cloths
- Compressed air (optional)

Safety glasses and nitrile gloves are recommended to avoid any contact with the eyes or skin that may cause irritation.

The following steps, performed as directed, will help maintain peak performance of the rollers. **Keep all sharp objects away from the rollers while performing the cleaning process and during material processing.**

1. Open the roller Nip area by raising the top roller far enough to easily access the bottom roller.
2. In a small container, mix 1/3 cup vinegar to 3-5 drops of Dawn® dishwashing liquid.
3. Soak a clean, white cotton cloth in the mixture and apply it to the roller, rubbing gently to remove any build up or adhesive residue. Keep the roller wet while rubbing with the cloth.
4. Rinse the cloth in clear water and re-apply the original solution until the roller is clean.
5. Gently wipe the damp roller with a separate clean, slightly damp white cotton cloth to remove the wash residue.
6. Air dry or use compressed air to complete the drying process.
7. Repeat the steps above on the second roller.
8. Carefully inspect the finished roller surface. It should be free of adhesive glue, knicks or residual particles before processing begins.
9. Wipe up any liquid residue from the machine and the work area before processing materials.