CONGRATULATIONS

You have just received your new APPLIKATOR multi purpose laminator. No doubt you are now consumed with an overwhelming desire to rip open the packaging, set up the machine, and get to work. All we ask is that you FIGHT THE URGE! Make a cup of coffee, find a quiet corner, and then...

READ ME FIRST!!

The APPLIKATOR is designed to give high quality results using cold self adhesive films. . Of course, to obtain a consistently good result, you must first understand a little about the machine.

The purposes of this manual are to:
1) Describe how to operate the machine and give you an understanding of the processes involved in laminating and mounting.
2) Know what to do when things go wrong.
3) To avoid prejudicing the liberal warranty we give.

INDEX

SELECTING A POSITION FOR YOUR MACHINE

Note: When lifting or moving your Applikator, ensure you have another person present to help you with the lifting. By bending your knees and keeping your back straight, you will help to prevent excessive strain and possible injury to your back.

Ensure that your Applikator is bolted firmly to the specially designed mobile stand. The mobile stand is not designed to be used on rough surfaces, and should be moved with care.

Some pressure sensitive films have a strong odour. This does not indicate the presence of toxic materials, but you may wish to place the machine in a well ventilated area.

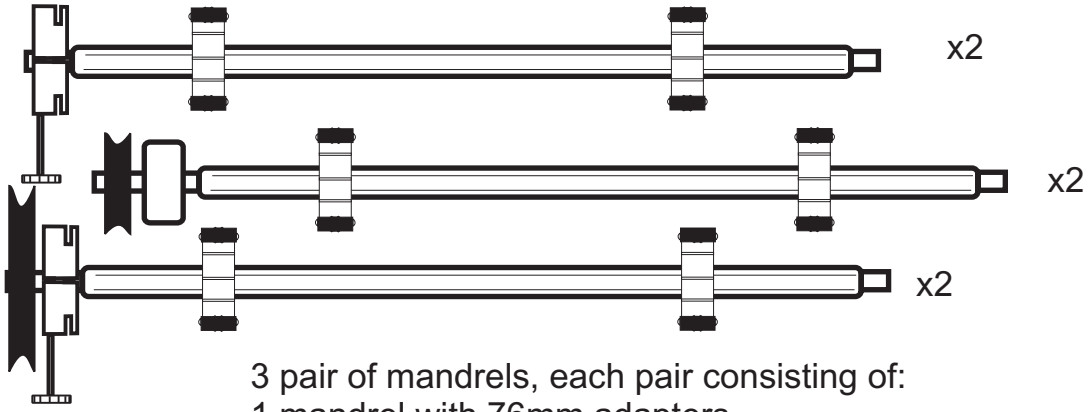
Ensure that the power outlet is readily accessible and installed near the laminating machine.

The machine should be in a well lit area, and you should have full access to the rear of the machine. Laminated items exiting the rear rollers should be able to fall directly to the floor.

Cords from the machine should be placed so as not to be hazardous.

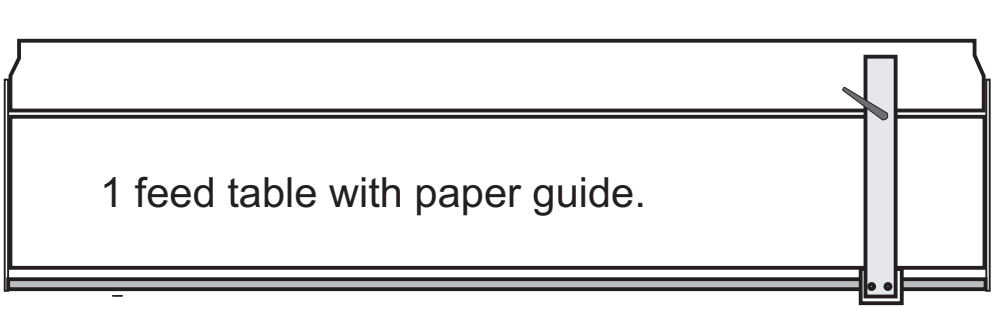
Note:- when not in use we recommend that the footswitch be placed on top of the machine to prevent accidental operation of the machine.

ASSEMBLING YOUR LAMINATOR

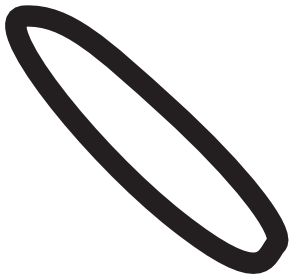


3 pair of mandrels, each pair consisting of:
1 mandrel with 76mm adapters
1 mandrel with 58mm adapters

Upper and lower Belt for rewind system

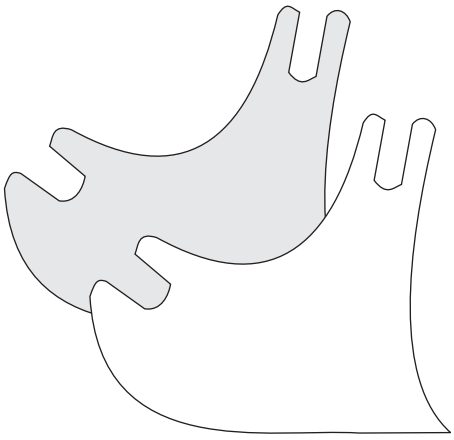


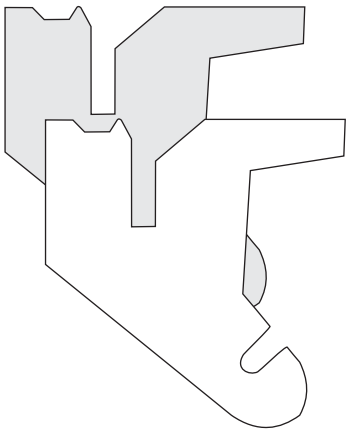
1 feed table with paper guide.

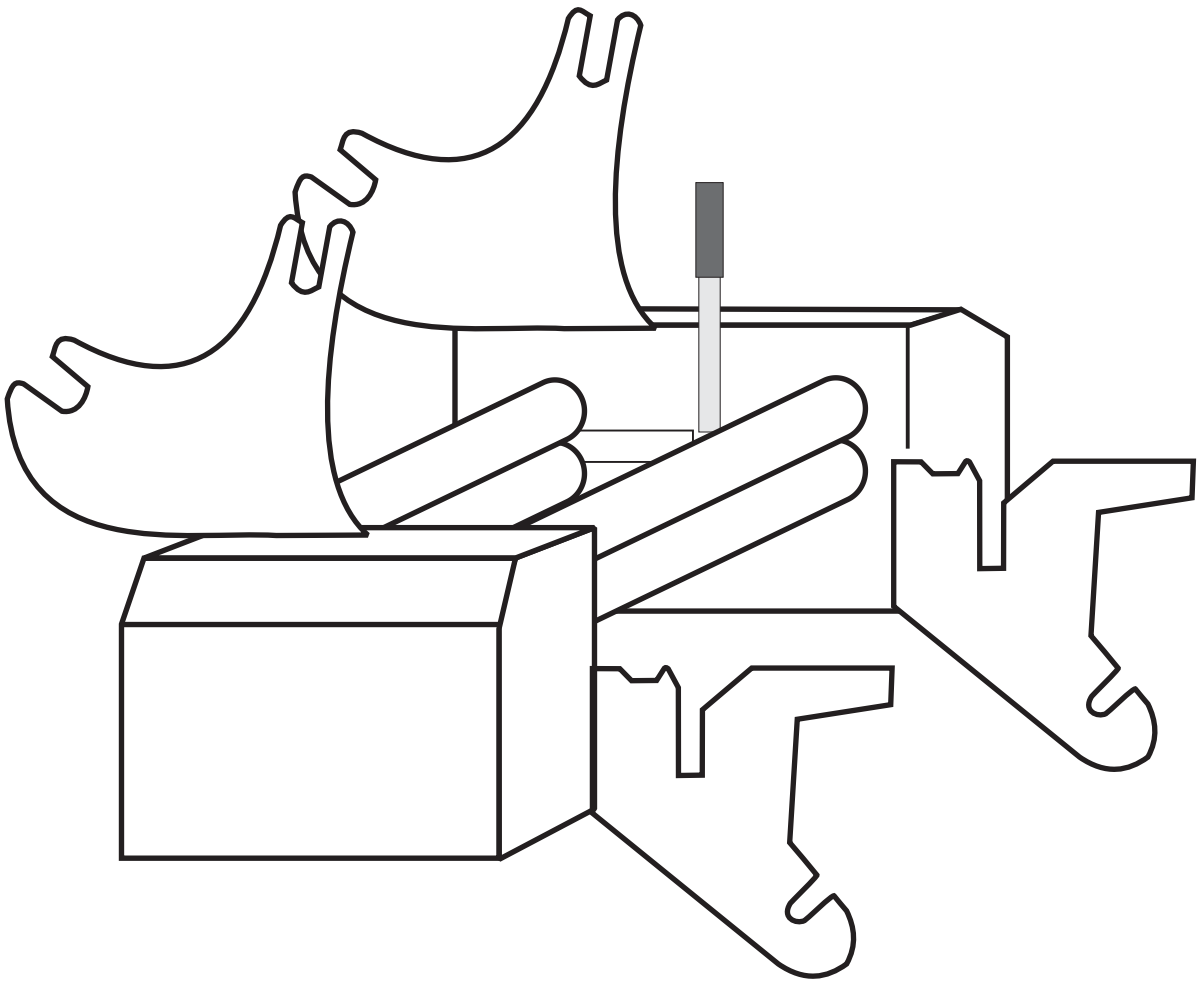


Right Upper Mandrel Bracket

Left Upper Mandrel Bracket







Bolt the upper mandrel brackets onto the machine as shown.

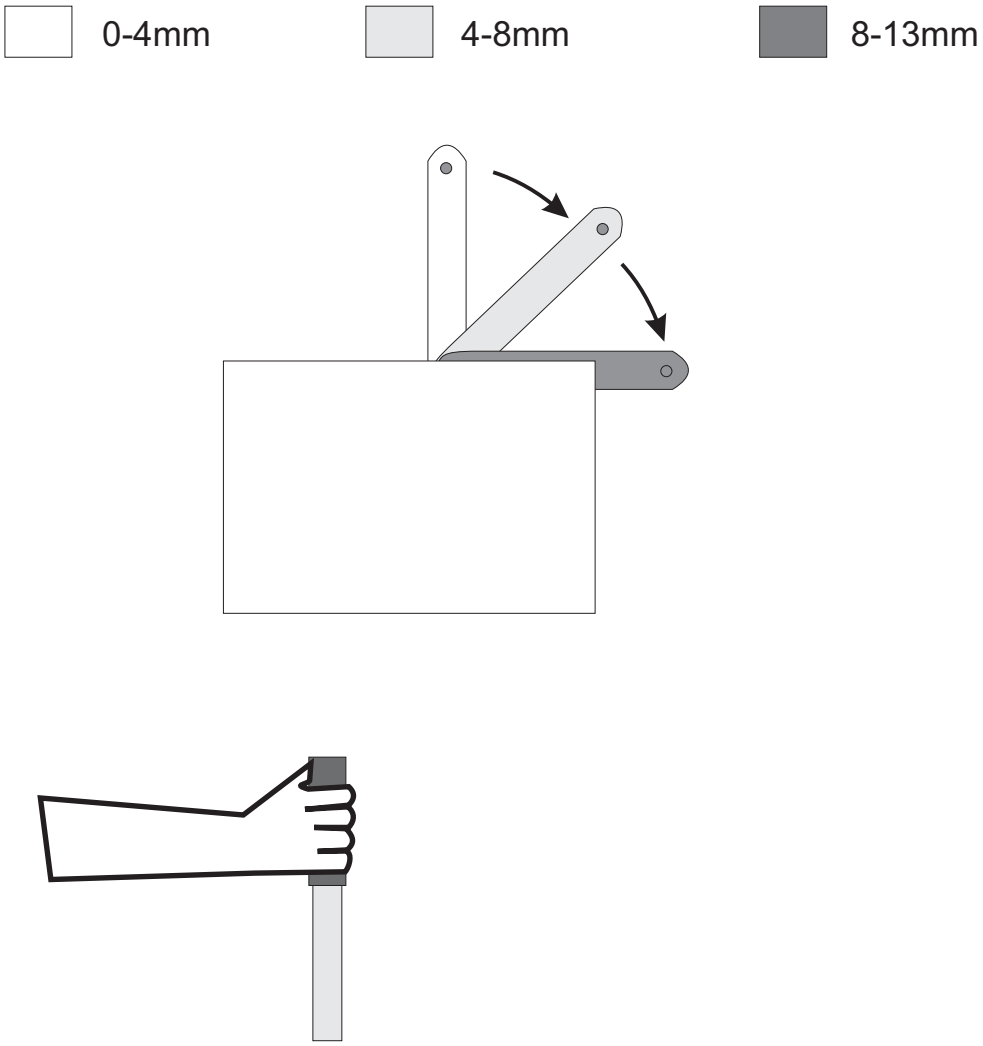
Bolt the lower mandrel brackets to the front of the machine, ensuring that the bent bracket goes to the left. Tighten all bolts with the allen key supplied.

OPENING ROLLERS

Opening rollers allow you to pass thick card or mounting boards up to 13mm thick through the laminator. This is used when applying self adhesive film to thick items, or for board mounting.

Depending upon spring tension, the rollers can sometimes be difficult to move. To open the bars properly, pull the handle on the right hand side of the machine towards you and down..

There are three steps in the opening rollers, 0-4mm, 4-8mm, 8-13mm.



PRESSURE SENSITIVE LAMINATION

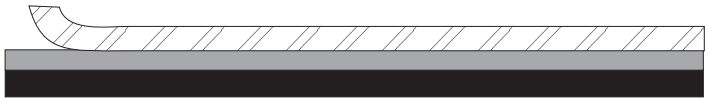
THE THEORY - HOW PRESSURE SENSITIVE LAMINATION WORKS

Pressure Sensitive film is made from vinyl or polyester, and is coated with a strong adhesive. When pressed against material, this adhesive sticks strongly to the material.

Under pressure, the layer of film form a flexible air and watertight seal, thereby greatly increasing the lifespan of the coated, and making it less vulnerable to moisture, tearing, creasing and general damage.

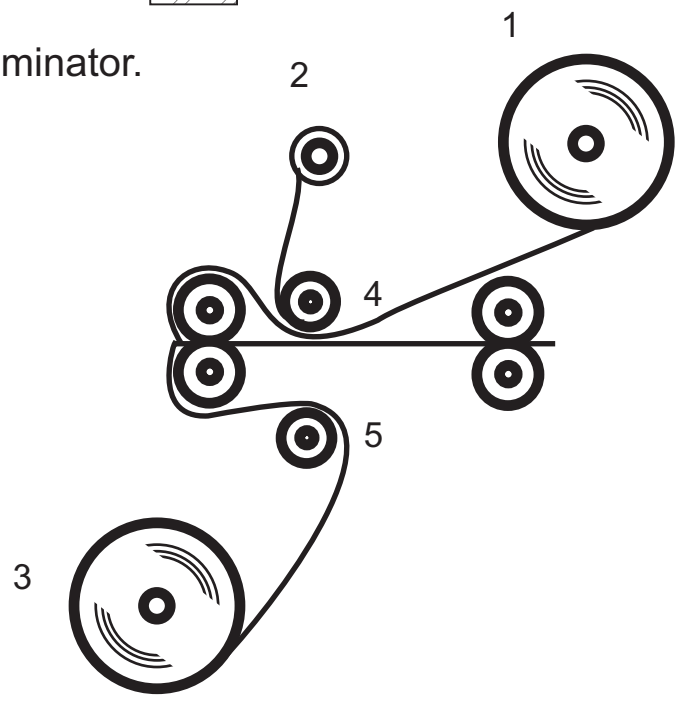
Some pressure sensitive films provide UV and graffiti protection, allowing coated items to last much longer in the sun.

Cross section of pressure sensitive film.



Main components of a roll fed laminator.

1. Double sided adhesive
2. Backing paper rewind
3. Underlay roll
4. Upper idler bar
5. Lower idler bar



PRESSURE SENSITIVE LAMINATING

There are several main ways of using the Applikator with cold film. These are single sided laminating, double sided laminating and board mounting.

USE OF PAPER UNDERLAY

Underlay film is used to protect the rollers from the self adhesive film if you are laminating items which are narrower than the width of the film itself. This also prevents the self adhesive film from wrapping around the rear rollers if a gap is left between items.

What to use as underlay?

Use a very cheap plastic or paper, or alternatively use the release paper from a previously used roll of pressure sensistive film. Remember that the underlay paper is discarded when used. Contact your supplier for cheap supply of underlay..

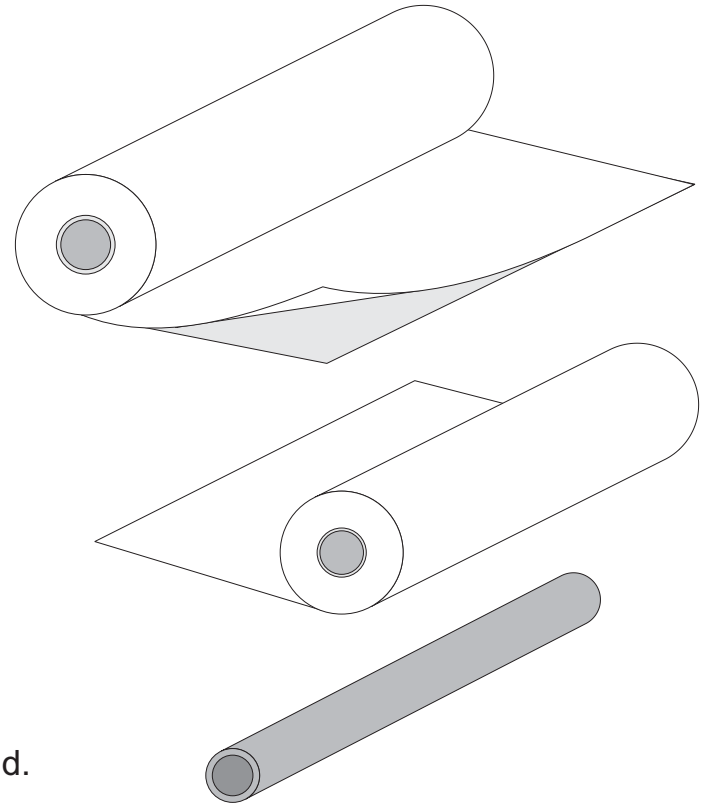
When you are laminating items which are wider than the pressure sensitive film, you may not have to use an underlay film. By overlapping the leading edges of the items you can prevent pressure sensitive film from adhering to the rollers. This, however, requires extreme care to prevent adhesive sticking to the rollers.

For single sided laminating, you will need the following.

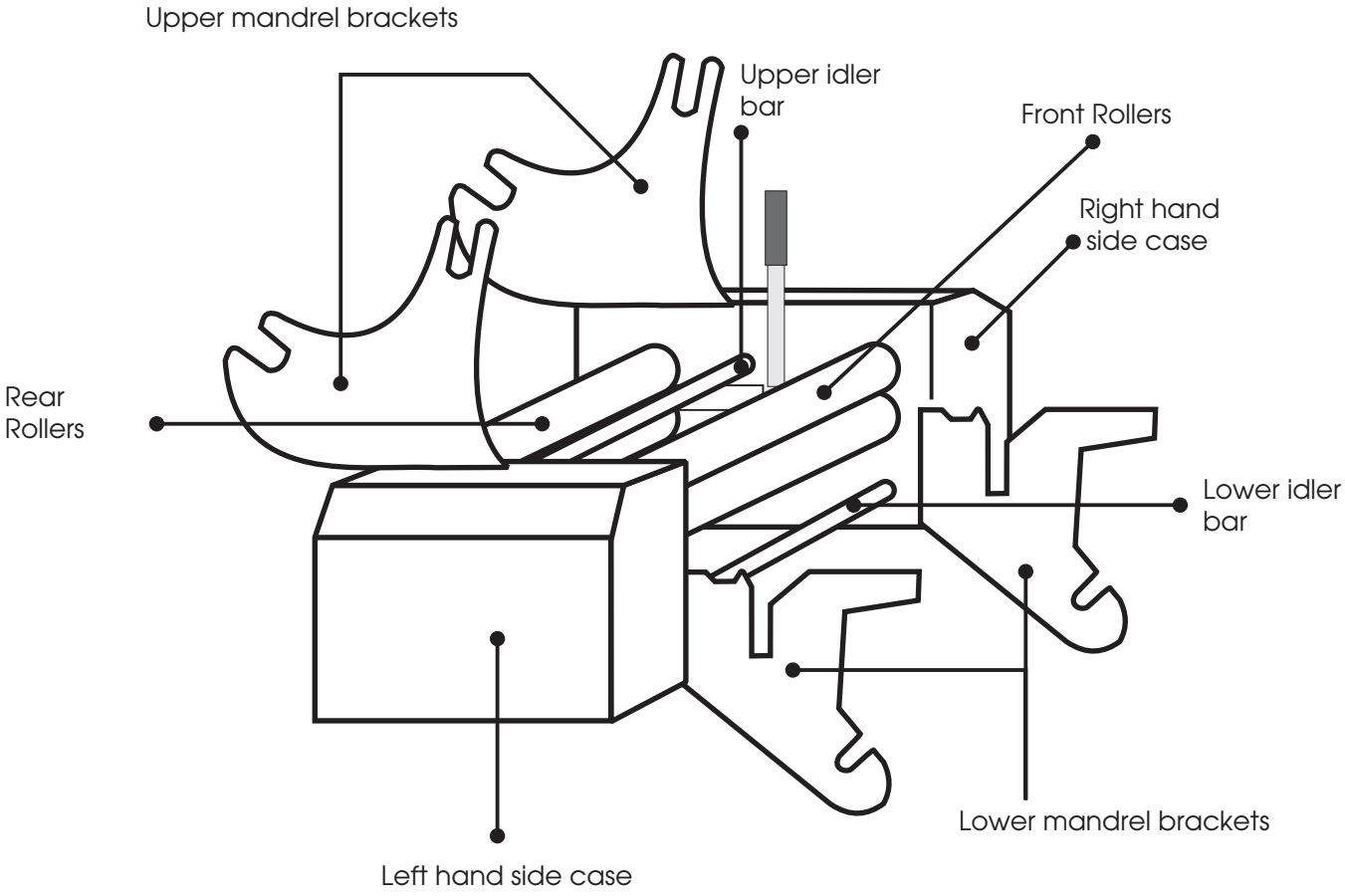
1. Pressure sensitive film

2. Underlay film

3. Cardboard core for rewind.



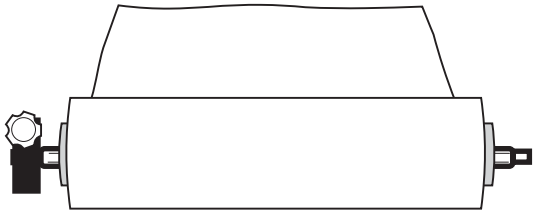
Machine Familiarization



Sides of the machine are referenced from the point of view of the operator standing in front of the side with the controls, facing the roller. The controls are situated on the **right hand side.**

LOADING THE MACHINE

Load the pressure sensitive film onto the mandrel with the large pulley. The film should spool from underneath, with the backing paper on top.

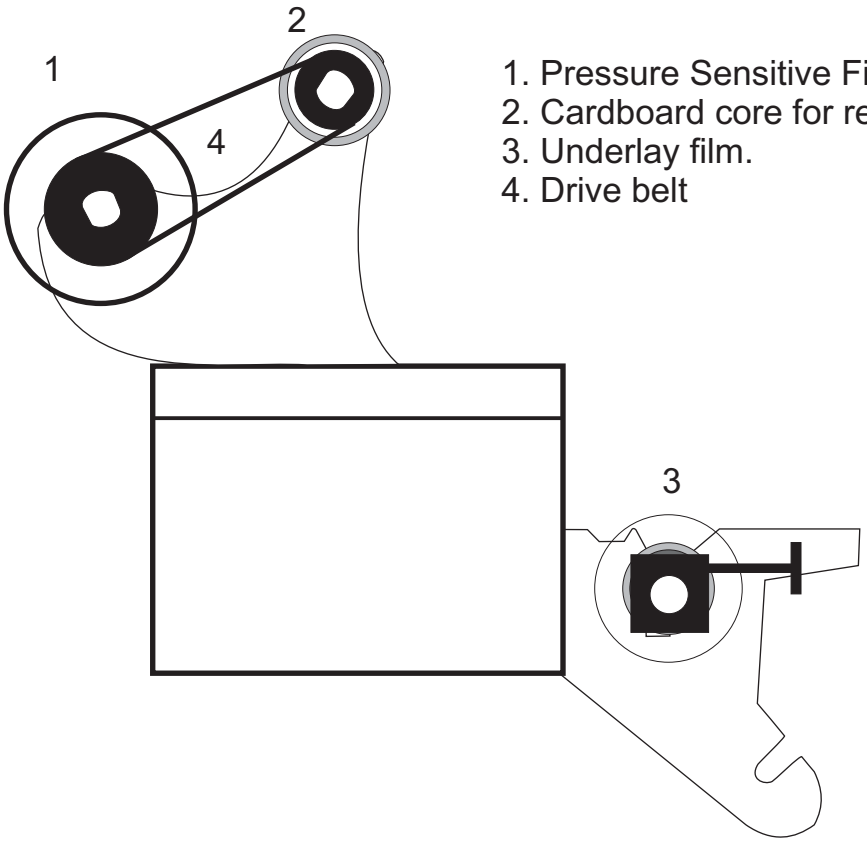


Load the underlay material onto a mandrel with a brake.

Load a cardboard core onto a mandrel with either 58mm (2 1/4") or 75mm (3") adapters.

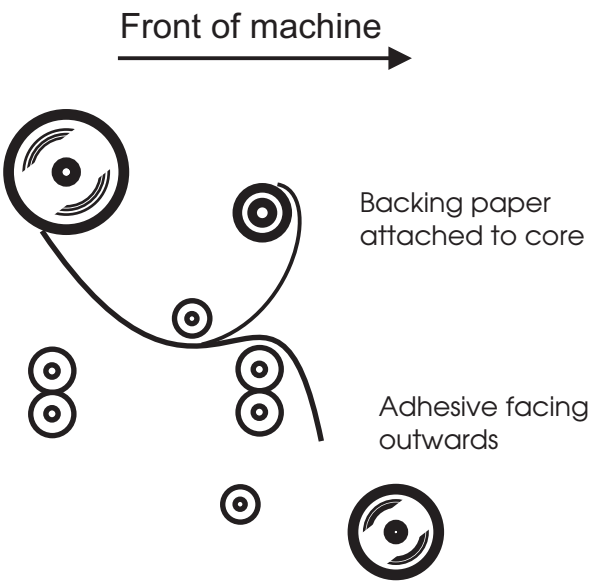
Load the pressure sensitive film on the rear of the upper mandrel bracket. Load the carboard core on the front upper slot, and the underlay on the lower bracket.

Stretch the drive belt between the front and rear pulleys.



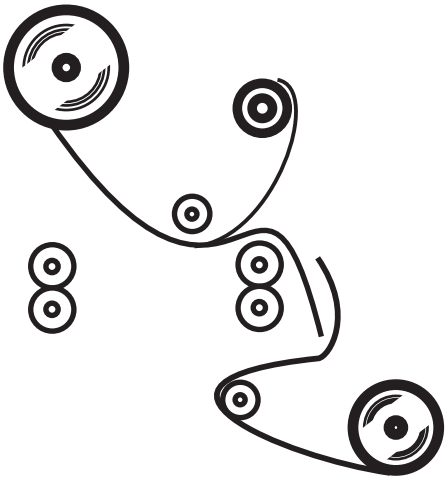
1. Pressure Sensitive Film
2. Cardboard core for rewind
3. Underlay film.
4. Drive belt

1.
Loosen the brake tension on the upper and lower rolls by turning the brake knob to the left until the roll of film is loose.
Pull the pressure sensitive from the roll, passing over the upper idler bar. Separate the backing paper from the film, and bring it over the front of the cardboard core. Secure it to the core using tape or staples.



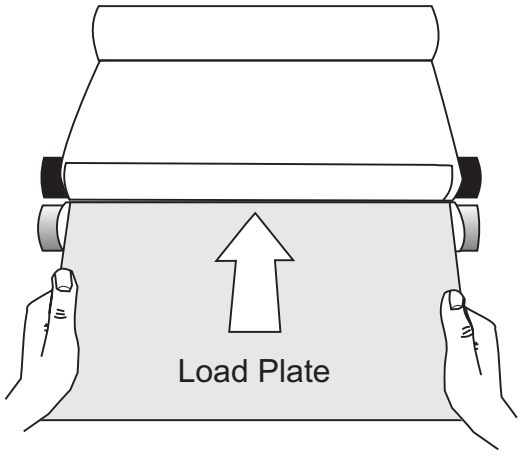
Allow the pressure sensitive film to drape across the front of the rollers. The adhesive surface will be exposed, and facing you.

2.
Pull the underlay film from underneath, passing behind the lower idler bar, and around to the front of the rollers. Press the underlay against the exposed adhesive surface.



3.
You can now attach the rewind belt to the pulleys. The easiest method is to :
1) Place the belt around the front small pulley
2) Stretch the belt out to the large pulley, so that it touches the top
3) Turn the large pulley counter clockwise while holding the belt to it, so it rolls into the groove.
4) Turn the large pulley clockwise to return it to the starting position.

4.
Set the machine to a low speed, and push the load plate between the rollers. Both self adhesive and underlay will be pushed into the rollers, and the load plate will carry both layers through the front and rear rollers.



Once the load plate has exited, you may stop the machine.

Note : The load plate must be at least the same width as the film, or else the film will not load properly.

GETTING STARTED - LOADING FILM

Leaving the load plate hanging from the rear of the machine, fractionally tighten the black knobs on the pressure sensitive film mandrels and underlay. Start the motor, and observe the film as it passes through the rollers. Creases in the film indicate the need for increased film tension. Apply tension SPARINGLY and evenly until the creases disappear.

Remember, the less tension the better.

Film tension must never be so great that the operator cannot turn the roll with one hand. Film stretching, curling, and possible machine damage are possible results of excessive tension. With pressure sensitive film you do not normally need any tension at all. If you have excessive tension the film may shrink back once the item is laminated
Check that the side edges of the film are aligned to prevent adhesive build up on the rollers.

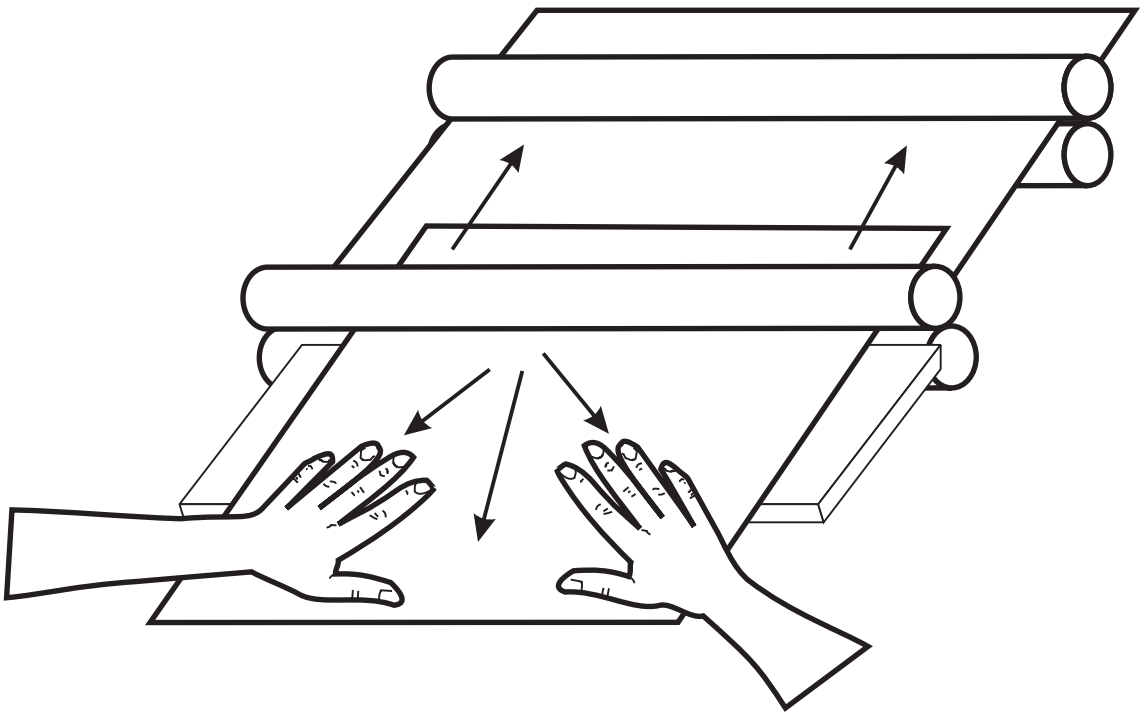
Place the feed table in position, ready for laminating.

GETTING STARTED - FEEDING ITEMS

Turn motor to a low speed. You may also wish to turn the motor function to `Footswitch' mode, and use the footswitch to stop and start the machine.

Lay the item flat on the feed table and slightly stretch the leading edge with your fingers. The side you want covered must be facing upwards. Move the item into the rollers until it has entered the rollers flat and straight. Using a slow machine speed, press the foot pedal and allow the item to be drawn into the rollers.

Retain a slight outward and backward pressure on the item to avoid creasing, and hold item for as long as possible to prevent the rear end buckling.



Pulling back and to the side to prevent creasing of the laminated item.

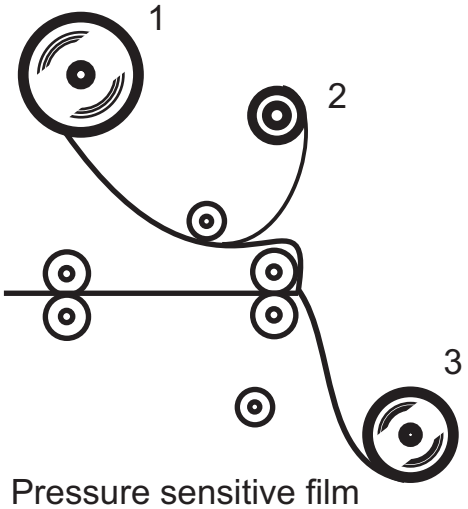
LAMINATING LONG ITEMS

When laminating a long item, it is advisable to use the paper guide to ensure that the item is aligned properly. If an item is put into the machine incorrectly it may be damaged, or may not be properly laminated.

If you know that the leading edge of the item is at an exact 90 degree angle to the side of the item, you can visually align the item by aligning the front edge with the rollers as it enters the machine.
If you need to laminate a very long item, you will find that winding it onto a discarded cardboard core which is then held on the feed table with the item unwinding into the rollers gives a very even result. This technique also allows excellent control over the back tension of the item.

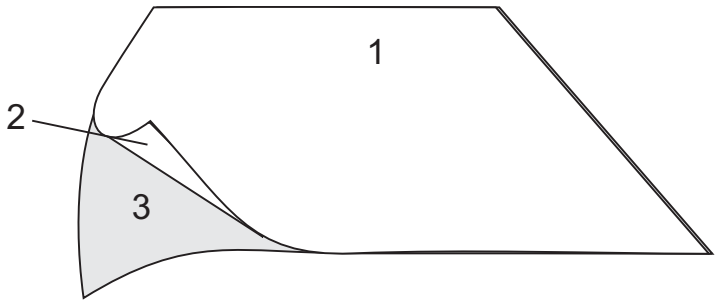
MAKING SELF ADHESIVE POSTERS AND LABELS

Instead of using an underlay film, load a double sided adhesive tape.
DO NOT pass the double sided tape around the idler bar.



1. Pressure sensitive film
2. Rewind core
3. Double sided film

Self adhesive poster



1. Laminated Item
2. Self adhesive side
3. Backing Paper

Reloading the machine

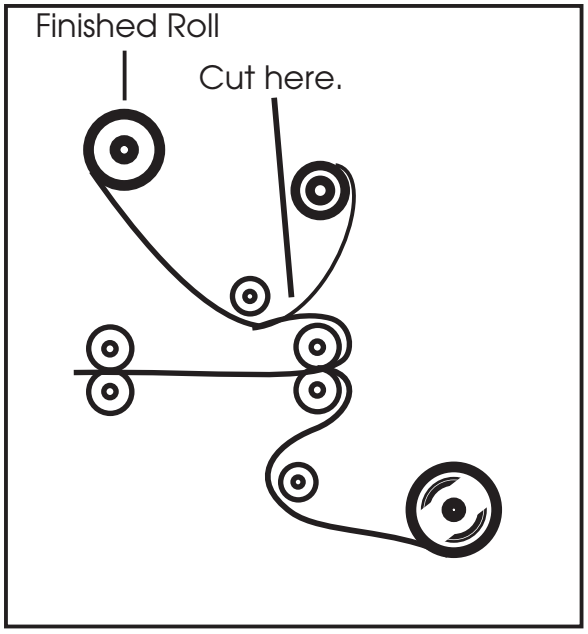
At the end of a roll of film you do not need to repeat the entire loading process. Follow these steps to make reloading of the machine a quick and easy process.

Step 1

Cut the film in the location shown, **taking care not to cut the rubber rollers..** Run the machine in forward setting at a low speed until the edge of the cut film is just on top of the roller.

Remove the empty film core and fully wound rewind core from the mandrels. The underlay will need replacing if it was the same length of the film.

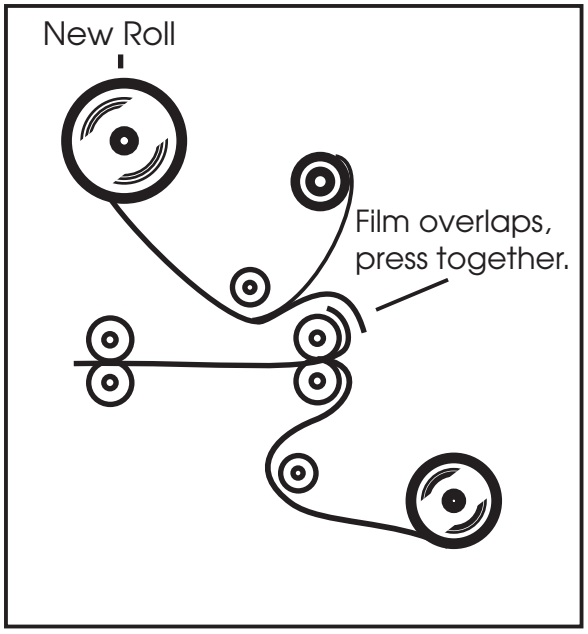
The old film core may be used as a rewind core, while the full rewind core may be used as underlay in some cases,



Step 2

Bring the new film forward, separating the release paper as in the original loading process. Atach the release paper to the rewind core.

The new film may now be pressed against the old film which is draped over the roller. Try to maintain an even tension over the film as you do this.



Step 3

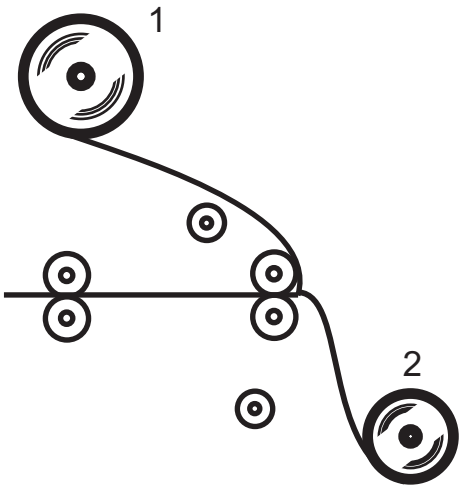
Run the machine at a low speed so that the new film is drawn into the rollers by the old film. Once the join has passed through the front rollers, and the film is flat and unwrinkled, you may begin laminating.

BOARD MOUNTING

There are several different methods used for board mounting. the simplest method is as follows.

PREPARING THE BOARD

Load the upper film roll with a double sided tape. This tape should not need to use the rewind function of the Applikator. Ensure when the tape is loaded that the sticky side is facing you, away from the rollers. Do not pass the adhesive underneath the idler bar.



1. Double sided adhesive
2. Underlay film.

Depending on the thickness of the board, open the rollers as described on page 4 of this manual. Push the board into the rollers and allow it to be pulled in. The board may need some force behind it before it enters the rollers, depending upon thickness.

As soon as the board has passed through the front rollers, raise the roller opening handle, closing the rollers. If this is not done, the film may wrap around the rollers. Once the board has exited the rear rollers, you may cut the film, and trim the adhesive to the edges.

You now have prepared a self adhesive mounting board, which may be used immediately or stored for later use.

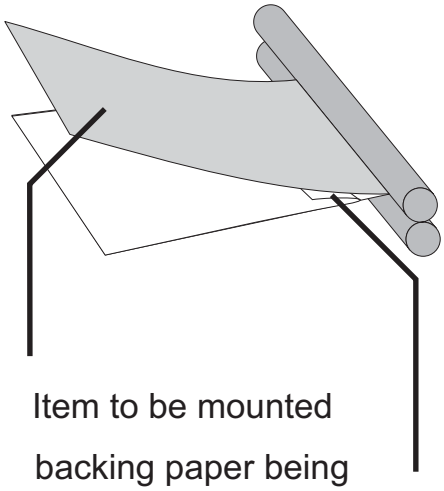
BOARD MOUNTING

MOUNTING THE ITEM

Ensure that the area which is coated in double sided adhesive is not much greater than the item. 5mm of adhesive showing on each side is the maximum.

Lay the item down flat on the board, and align at least one edge. Keep the item in position with weights, pins or clips.

Peel the leading edge of the backing paper back (approx. 10cm), and press down the item to make sure it adheres properly.



Item to be mounted

backing paper being peeled back, revealing adhesive surface.

Open the rollers to the correct position, and push the leading edge into the rollers. As the board is drawn into the machine, pull the backing paper from the board as illustrated.

A video is available showing this process. Please contact your supplier for details.

If the backing paper is caught in the rollers, don't panic, simply reverse the rollers until the backing paper is free, and proceed with mounting.

To ensure <u>even</u> coverage on mounting boards which are 9mm and above, it may be necessary to release the tension off the front 4 springs completely.
Please ensure that tension is returned to the correct position before continuing normal laminating.

Tips and Tricks

Attaching the release paper to the core

When loading the rewind mandrel, it can sometimes be very difficult to adhere the film to the cardboard core. By using a strong stapler gun it is quite easy to staple the rewind paper to the core.

Another method is to cut off the first 50mm (2") of film (not release paper) and use this to attach the release paper ,the wider surface area helping to hold down the paper.

Pulling film straight

After the initial loading of the machine you may see creases or faint ripples in the film as it travels over the roller. This may also sometimes occur after lamination of a long item, due to the thickness of the item.

This will often disappear after running some more film through the rollers, but this can be rather wasteful of film. In order to straighten this film out without wastage :

Open the rollers one step, move to the rar of the mahine and pull the film straight on the side where the wrinkles are showing. While held tight, close the rollers. The film should now be straight.

If you continue to have wrinkles in the film which affect the lamination, consult the troubleshooting section of this manual to see how to adjuest the machine to prevent this.

Economising with film

There are many ways to economise with the laminating film. Following are four of the most common.

(1) Minimise the gap between items being laminated (not always possible).

(2) Use a film which is the same width as the items being laminated.

(3) At the end of an item, cut the film so that it covers the remaining length of an item, but no more. As always, be careful when using a knife near the rollers to avoid non warranty damage. This method is best used when the last item is being run for a particular type of film, otherwise the machine has to be reloaded each time.

(4) At the beginning of a run, lay the first item over the load plate so that the plate is fed into the machine, the item laying on top of it is coated. This can leave a faint mark in the item, which usually fades with time. It is recommended that you are experienced in film loading before attempting this.

Using narrow film

It is possible to use a film which is narrower than the maximum width of the roller. However, it is very important that when doing so, the film is centered in the rollers, otherwise you will encounter problems caused by the camber of the rollers.

Troubleshooting

Wrinkles in film

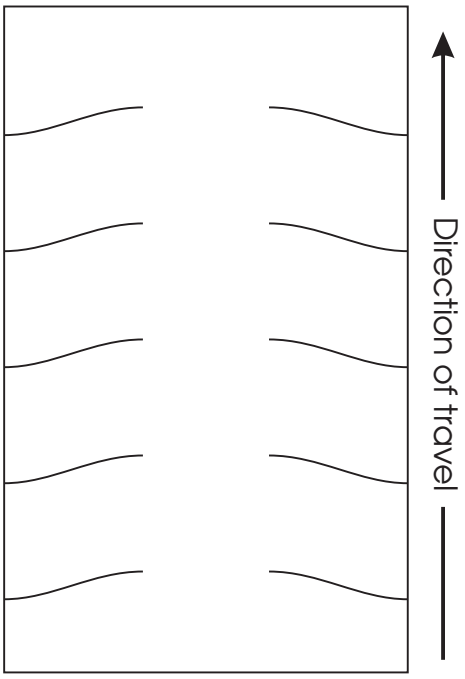
There are a number of different causes for wrinkles in the film. This section will detail the most common causes and cures. Please remember that wrinkles in underlay film only are quite acceptable and are only a problem if they affect the finished result.

Horizontal wrinkles in laminate (1)

These wrinkles are seen most often in the very wide Applikators, and are due to a lack of rear roller pressure, causing the rollers to pull too much in the middle.

Solution :

Tighten the back roller 1-2 turns and try again.

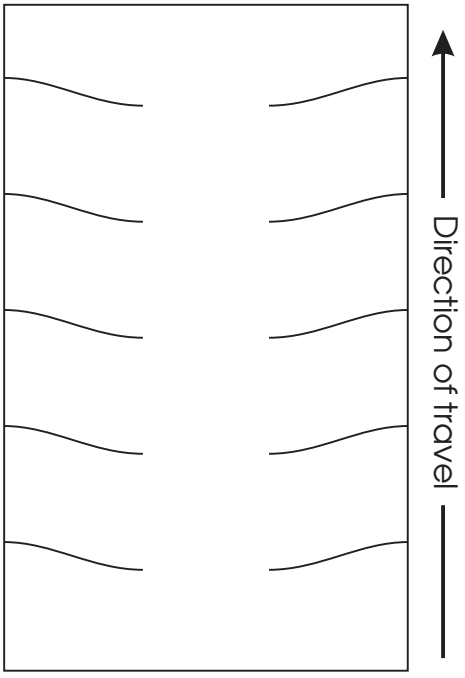


Horizontal wrinkles in laminate (2)

These wrinkles are seen most often in the very wide Applikators and are due to an excess of roller pressure in the rear rollers, causing the rollers to pull too much on the sides.

Solution :

Loosen the back rollers 1-2 turns and try again.

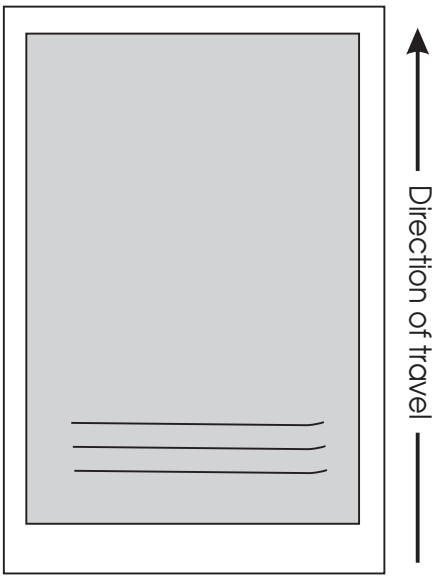


Troubleshooting

Horizontal wrinkles in laminate (3)
Wrinkles at end of item

This problem occurs mainly when an item which has been rolled or curled has not been held down flat as it enters the rollers, and the end section curls up and hits the film. This may also manifest itself at the beginning of an item which has been curled and not held flat.

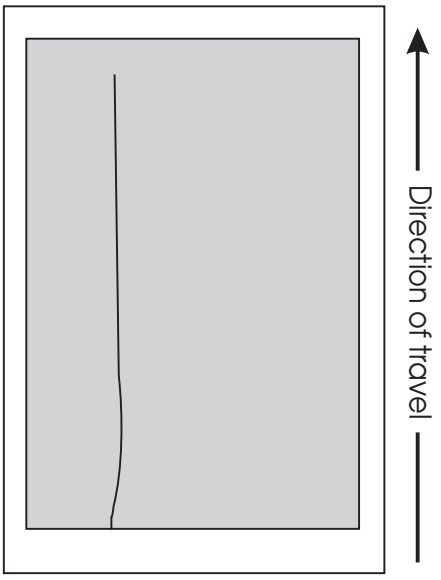
Solution : Be sure to hold down the beginning or end firmly as it enters the rollers, so that it doesn't curl up and touch the film.



Vertical wrinkles in laminate (1)
A crease travelling along the item.

The crease may start at any point in the item and travel along to the end. It only affects the item being laminated.

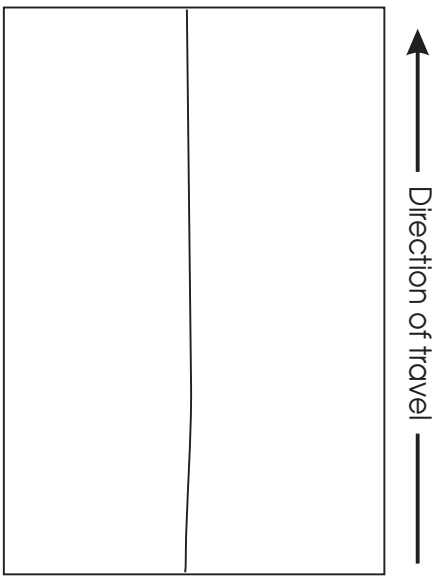
This problem is caused bu an item being incorrectly fed into the machine, or not held flat as it passes through the rollers. Consult the lamination section of this manual for information on proper lamination technique.



Vertical wrinkles in laminate (2)
A crease travelling through the film.

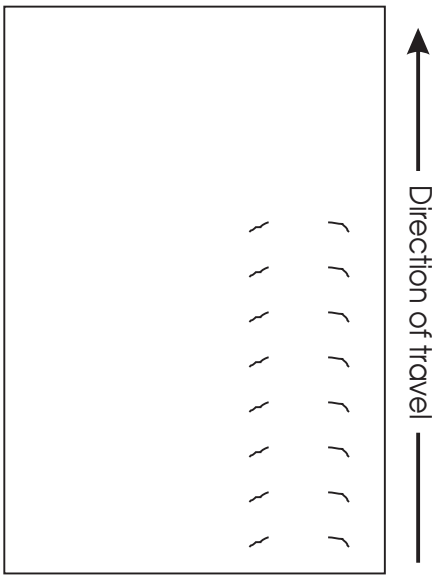
A crease running through the laminate when there is nothing being laminated.

Not a very common problem. This may be caused by the film being incorrectly loaded. Check if the film is creasing as it passes over the roller, if so you may wish to reload the cold film by cutting it and adhering it to the film on the roller.



Troubleshooting

There are air bubbles in the film



Large air bubbles

Sometimes after loading or laminating a thick item you may trap air between the film and the underlay, leading to air bubbles.

The problem sometimes makes itself known by a repeating popping noise and marks in the item as sh own in the picture to the right.

To remove these bubbles, feel behind the back rollers with your hand. A noticeable bump will indicate the presence of a bubble., Taking care not to damage the roller, gently prick the bubble with a pin or other sharp object.

There are small bubbles at very even intervals.
If this bubble is about the same size and shape and appears at very even intervals, check the rollers to see if a piece of rubber is missing. Damage to the rollers like this can cause small bubbles to form.

Large areas of small, flat, joined together bubbles.
This may be caused by one of several things.

(1) A rough or textured surface on the item being laminated.
Check the surface of the film to make sure that it is fairly smooth and flat.

(2) Low adhesion on the film being used.
If this problem occurs after changing to a new roll of film, check if the adhesive is as strong as on the last roll of film.

(3) Lack of roller pressure (uncommon)
If you have checked the above causes, you may wish to check that there is sufficient roller pressure. Ensure the rollers are fully closed.

Occasional spots, small in size, in random places.
The major cause of these bubbles (mostly noticeable in dark laminated items) is specks of dust stuck to the item prior to lamination. To avoid this, try laminating in a dust free environment, or alternatively blowing or wiping the dust from the surface as the item is being laminated.

Not laminating in center
This can be caused by excessive roller tension, leading to the rollers being pulled apart in the center. Overtightening of the roller pressure can also cause this problem.

Broken rewind belt.
It is very uncommon for the rewind belt to break, but if they are placed under a lot of stress they may break at the point where they were joined. To repair this, simply use a small amount of superglue on the two ends and hold them firmly together for a minute, or until they are secure. Allow five minutes to dry, and then use.

The machine is making an unusual noise.

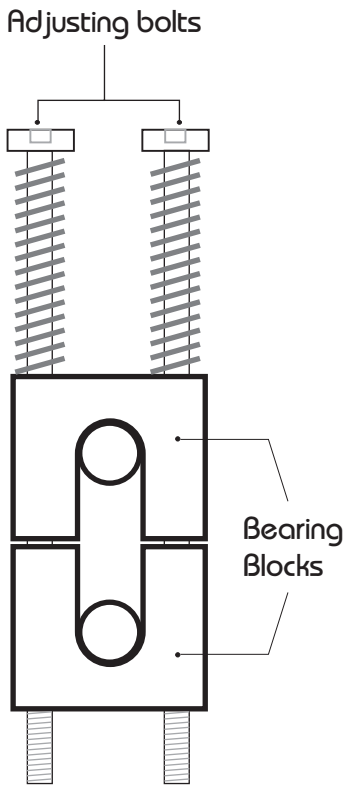
When operational the machine will make some noise, but if this noise becomes loud, obtrusive or unusual then there may be a problem.

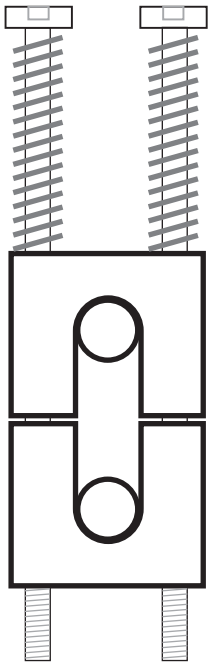
Noise : A repeated banging noise, particularly when a large amount of braking pressure is applied.
This noise is the chain skipping on the gear, and can be caused by excessive braking force. Contact your supplier on information on re-tensioning the chain.

Static Electricity

It is not unknown for a small electric spark to jump between two metal parts while the machine is running. This is static electricity, and is caused when the film is moving over the rubber rollers. This is a harmless phenomena, and is the same effect as can sometimes be felt when walking over a carpet and touching a metal item. If you feel that something is wrong with the machine electrically, please contact your supplier.

Adjusting Roller pressure





To reset springs to factory settings :

Adjust the bolts so that they are just touching the top of the tension springs, without applying any pressure.

Turn all front bolts 1 full turn.

Turn all rear bolts 2 full turns.

To tighten : turn bolts clockwise.

To loosen : turn bolts counterclockwise.

Due to different film thickness and other variables further fine tuning may be required.