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Guide to Mounting and Laminating

- Three Step Mounting & Laminating Process
  - Overview
  - Application of double sided adhesive to the mounting board
  - Application of image to the adhesive coated board
  - Application of laminate to the imaged board
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- Encapsulation Process
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  - Encapsulation
- Guideline Settings

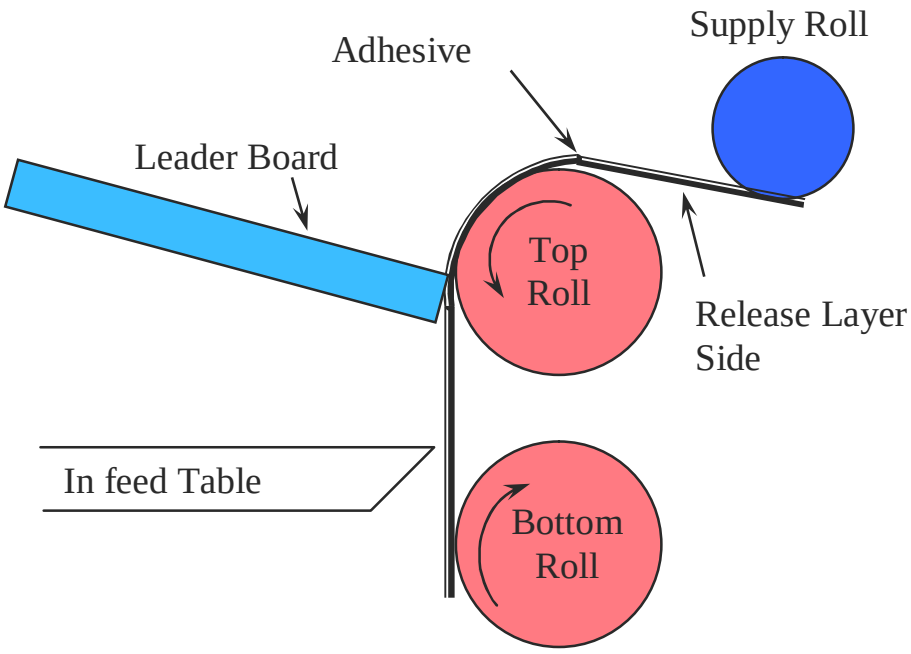
By S.M.Evans

Three Step Mounting and Laminating Process

- Overview
  - Step 1) Application of double sided adhesive (e.g. Print mount 1) to mounting board
  - Step 2) Application of image to the adhesive coated board (see step 1)
  - Step 3) Application of Laminate to the imaged board (see step 2)

Application of double sided adhesive to the mounting board

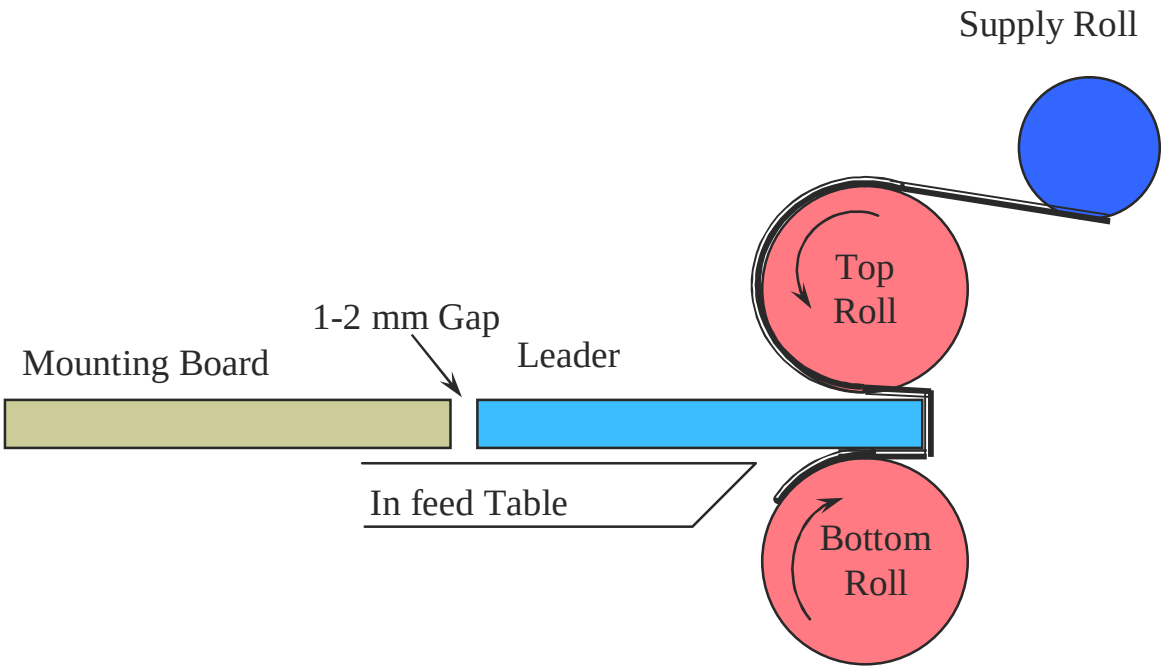
1. Place the double sided adhesive on the Top supply roll ensuring that the adhesive side does not face the top roll when draped over the Top Roll



2. Apply a little tension to the Double sided adhesive with the Tension controls

3. Set the gap between the rolls to the appropriate thickness for the board and lower the rolls

4. Using the leader board push the media into the gap, and start the rollers turning at the desired speed with the foot controller. Feed the leader board in checking that the material is now flat against the roll with no wrinkles (use the tension control to remove any wrinkles)



5. As long as there are no wrinkles entering the point were the roll meets the board you can follow through with the mounting boards leaving a 1-2mm gap between each board

Tip: The leader board is usually around 6-12” deep and max width the machine can take. Also the Leader board and mounting board should normally be of same thickness

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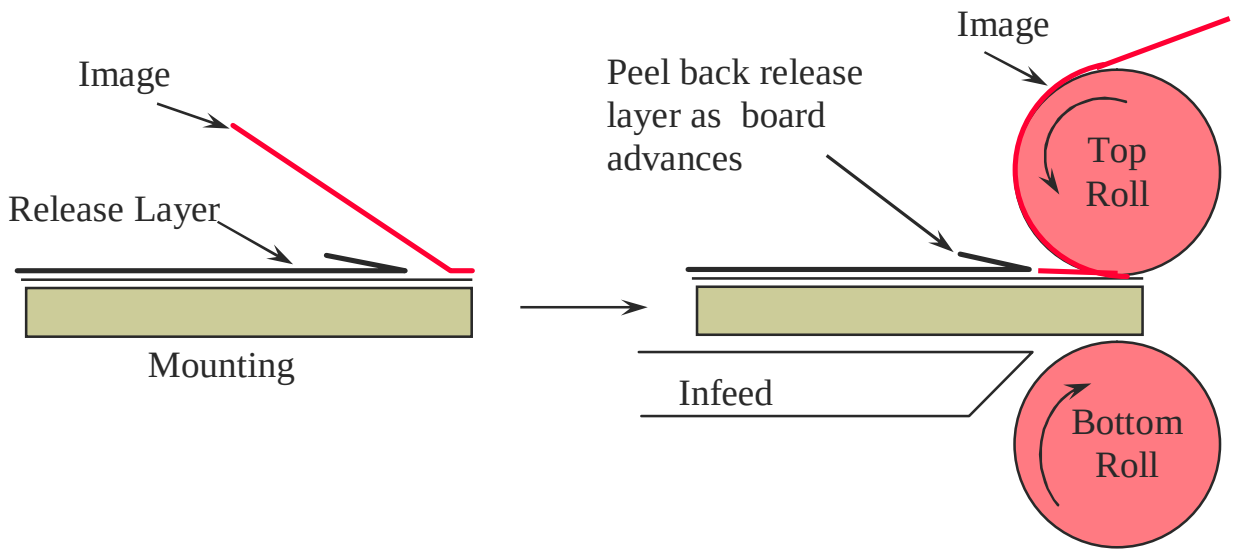
Application of image to the adhesive coated board



1. Peel & fold back about 1-2 cm of the release layer on the mounting board at one side revealing an adhesive strip the width of the board

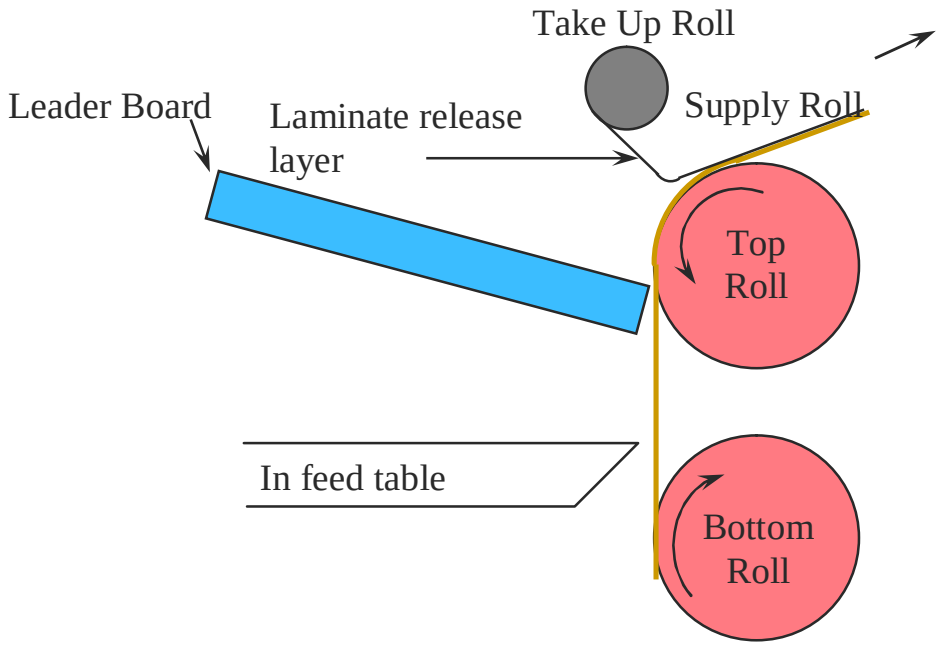
2. Carefully position the image on the board and adhere the edge of the image to the adhesive with hands. When adhering the image to the strip of revealed adhesive, start from the centre point and work towards the ends (prevents air bubbles).

3. Lower the rolls to the appropriate width & just tap the foot controller until the image and board has been gripped. Drape the image over the top roll so that the image hugs the roll (If the image is long, roll it up and place between the torsion bar and top supply roll) and feed forward peeling back the release layer, and gently rubbing the image on the roll (creates a static attraction which helps the image hug the roll).

Tip: The squarer the edges of the board and image are in relation to one another the easier the job

Application of laminate to the imaged board

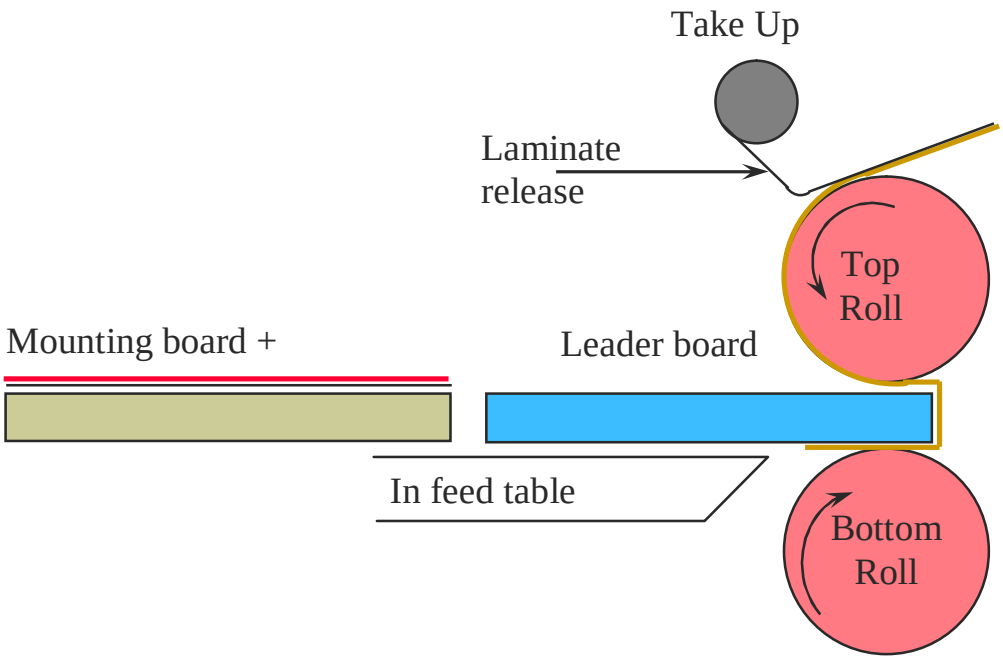
1. Place Laminate on the Top Supply roll ensuring that the release layer can be attached to the Take Up Roll (e.g. with double sided tape). Peel the laminate from the release layer so that it drapes in front of the two rollers



2. Apply a little tension to the Laminate material with the Tension controls

3. Set the gap between the rolls to the appropriate thickness for the board and lower the rolls

4. Using the leader board push the media into the gap and start the rollers turning at the desired Speed with the foot controller. Feed the leader board in checking that the material is now flat against the roll with no wrinkles (use the tension control to remove any wrinkles)



5. As long as there are no wrinkles entering the point were the roll meets the board you can follow through with the imaged mounting boards leaving a 1-2mm gap between each board

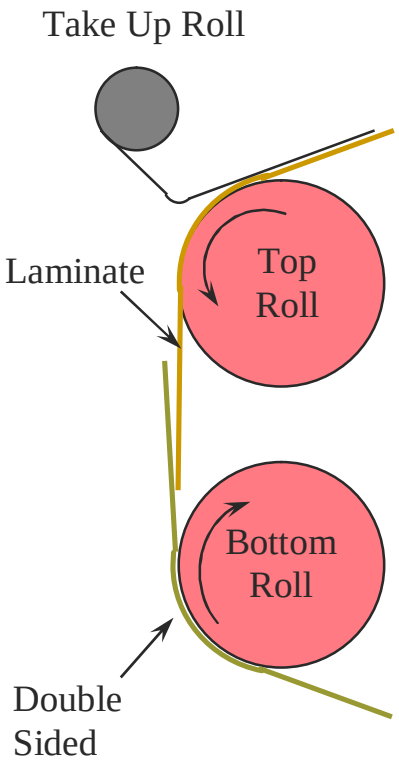
Tip: Inkjet images should be allowed to dry for a minimum of 4 hours preferably 8 before laminating or encapsulating

Two Pass Mounting & Laminating Process

- Overview
  - Step 1) Application of laminate & double sided adhesive to the image in one pass
  - Step 2) Application of laminated image to the mounting board

Application of laminate & double sided adhesive to the image in one pass

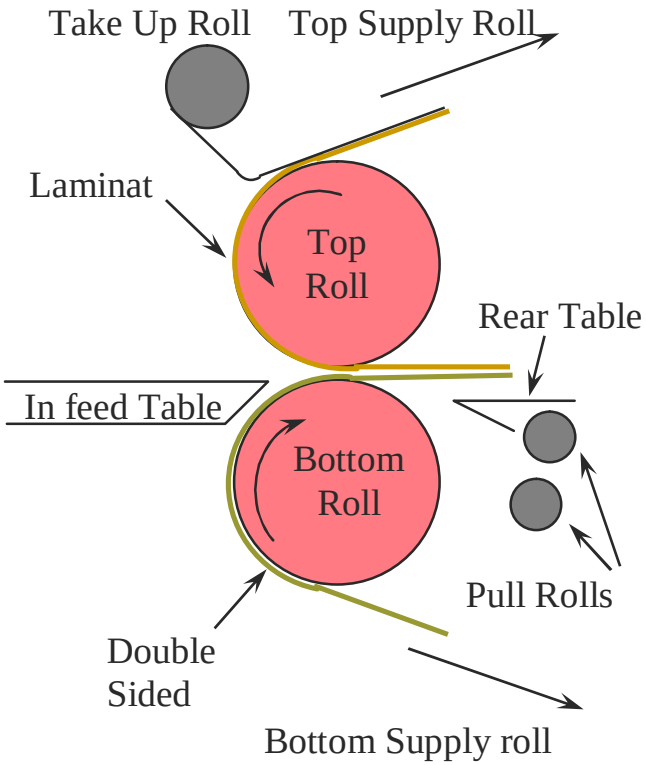
1. Remove the In feed Table



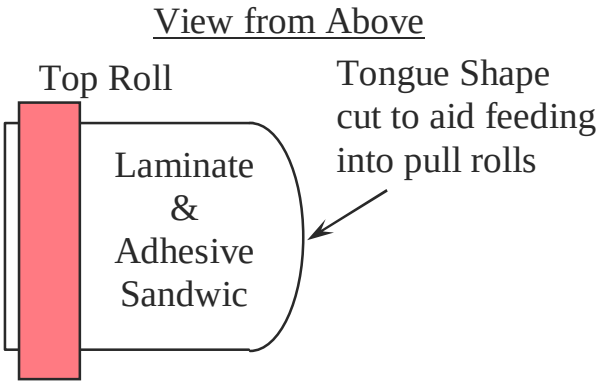
2. Place Laminate on the Top Supply roll ensuring that the release layer can be attached to the Take Up Roll (e.g. with double sided tape). Peel the laminate from the release layer so that it drapes in front of the two rollers

3. Place the double sided adhesive on the Bottom Supply roll ensuring that the adhesive side does not face the bottom roll when pulled up and placed over the laminate so that they adhere together.

4. Set the gap so that the rolls will touch when lowered. Push the laminating media between the rolls and hold with either a thin leader board or very carefully positioned fingers, so that when the Rolls are lowered the media is trapped between the rollers (but not your fingers!)



5. Using the foot controller advance the media until enough has gone through to enable you to cut the tongue shape.

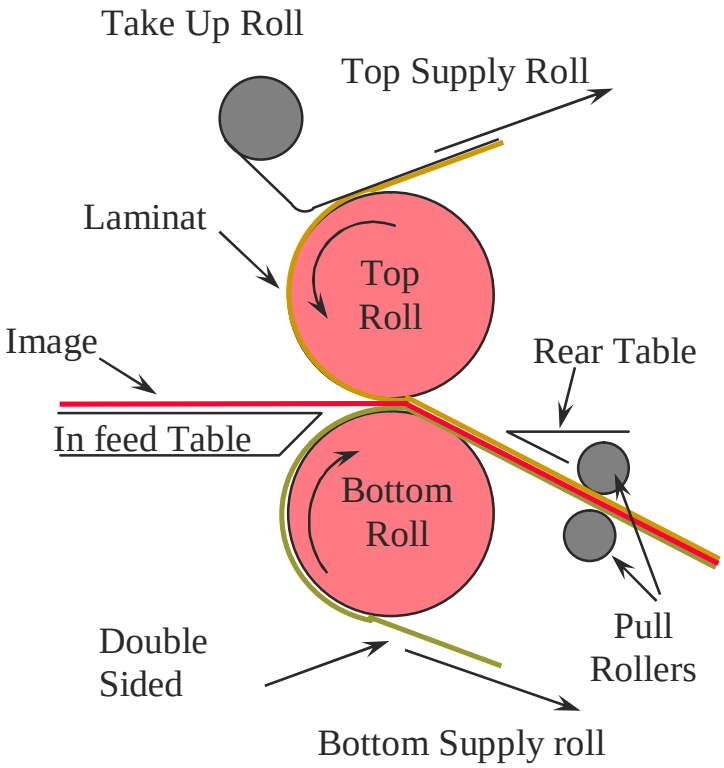


6. Carefully feed the material into the groove (Not applicable for some users) in the rear table until the laminating Media feeds out of the pull rollers

7. Apply the appropriate tension to both media. Lift the rolls, start the rollers and lower the rolls again. Adjust tension until no wrinkles can be seen entering between the rollers. Check that there are no travelling air bubbles caught in front of the pull rollers (Audible crackling & a track in the laminating media. To remove prick material with scalpel in line with the Track as it enters the groove in the rear table).

   N.B. be careful not to cut the rolls.

8. Replace in feed Table. Feed image into gap keeping the image flat. Use of table fans & feed tracks if available may make the job easier.



Tip: Cold laminators or those with only a single heated roller may not have pull rollers and some Laminators with pull rollers allow you to run jobs without using them. If this is the case it can help to have a second person pull on the material at step 7)

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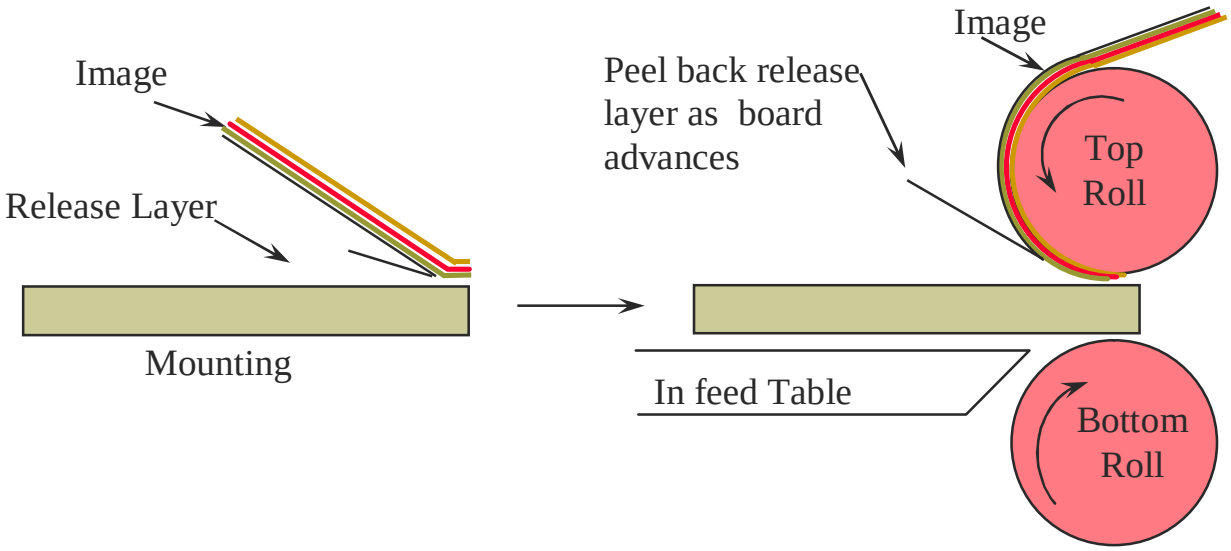
Application of laminated image to the mounting board

1. Peel & fold back about 1-2 cm of the release layer on the image at one side revealing an adhesive strip the width of the image

2. Carefully position the image on the board and adhere the edge of the image to the adhesive with hands. When adhering the image to the strip of revealed adhesive, start from the centre point and work towards the ends (prevents air bubbles).

3. Lower the rolls to the appropriate width & just tap the foot controller until the image and board has been gripped. Drape the image over the top roll so that the image hugs the roll (If the image is long, roll it up and place between the torsion bar and top supply roll) and feed forward peeling back the release layer, and gently rubbing the image on the roll (creates a static attraction which helps the image hug the roll).

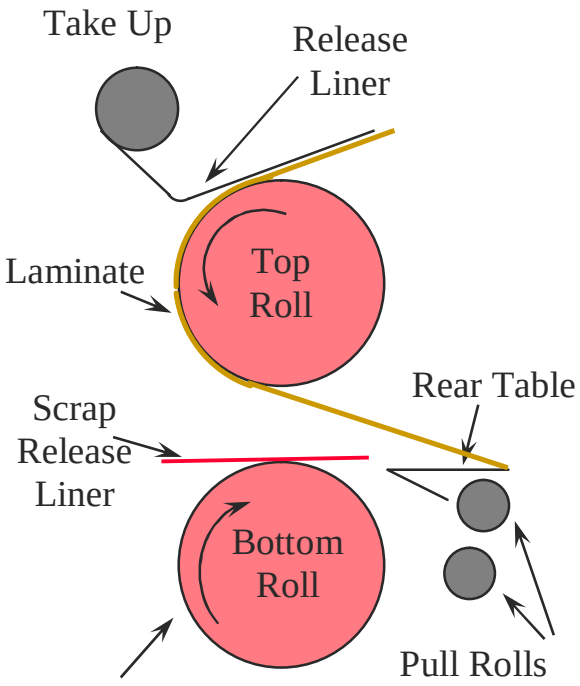


Single sided Lamination

- Overview
  - Application of laminate to the image. This is most commonly used by customers with solvent printers, e.g. Sign Makers & vehicle wraps.

1. Remove the In feed Table

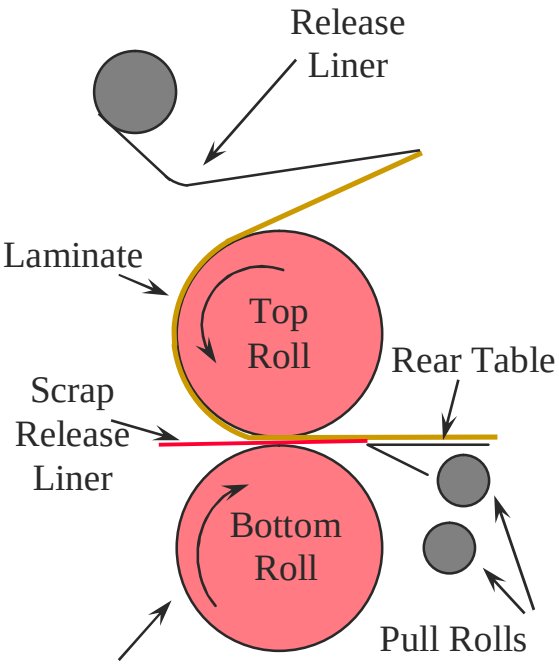
2. Place Laminate on the Top Supply roll ensuring that the release layer can be attached to the Take Up Roll (e.g. with double sided tape). Peel the laminate from the release layer then pull it through the rollers and attach to the back of the rear table



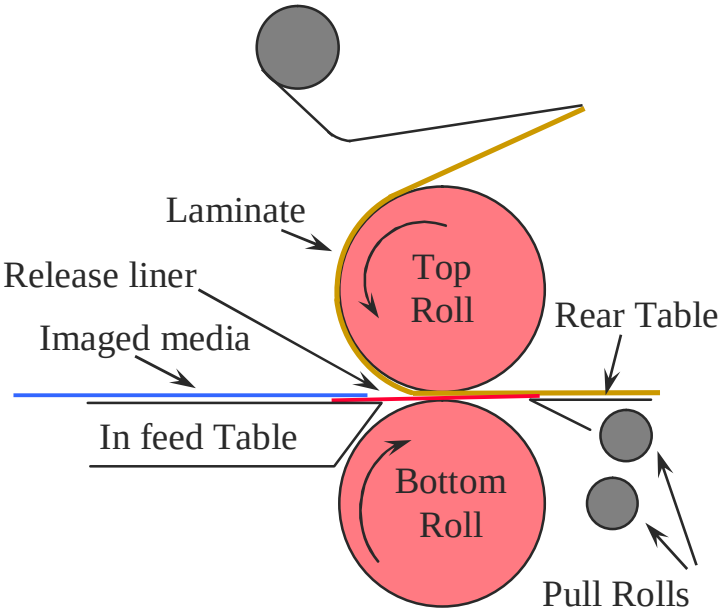
3. Place some scrap paper between the top and bottom roll then lower the rollers (e.g. release liner approx 1m in length & same width or greater than the laminate being used)

4. When the rollers have been lowered slowly feed the “scrap paper” forward and check that the laminate is not wrinkled as it goes through the nip. When this has been achieved trim off the “scrap paper” 2-4” inches in front of the rolls.

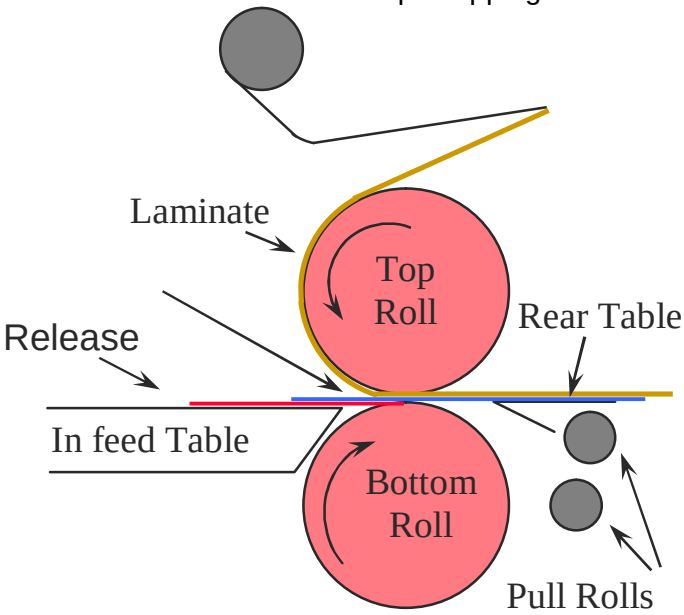
N.B. Take care not to cut the rolls.



5. Now place the media to be laminated so that it just overlaps the scrap release liner (you can also feed under as well if you have enough header on your imaged material) and feed in.



6. Near the end of the imaged material place another job, or more release liner so that they overlap. The aim is that you never have exposed laminate contacting the bottom roller as this could end up wrapping round the bottom roller

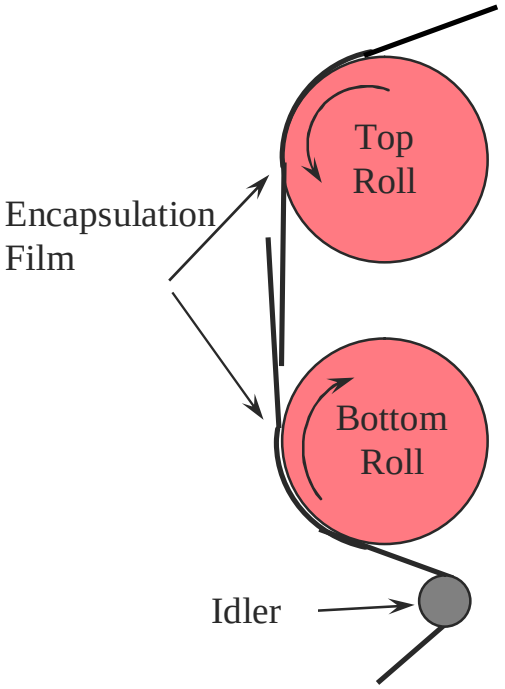


Encapsulation Process

- Overview
  - Application of two heat activated encapsulation materials to an image simultaneously

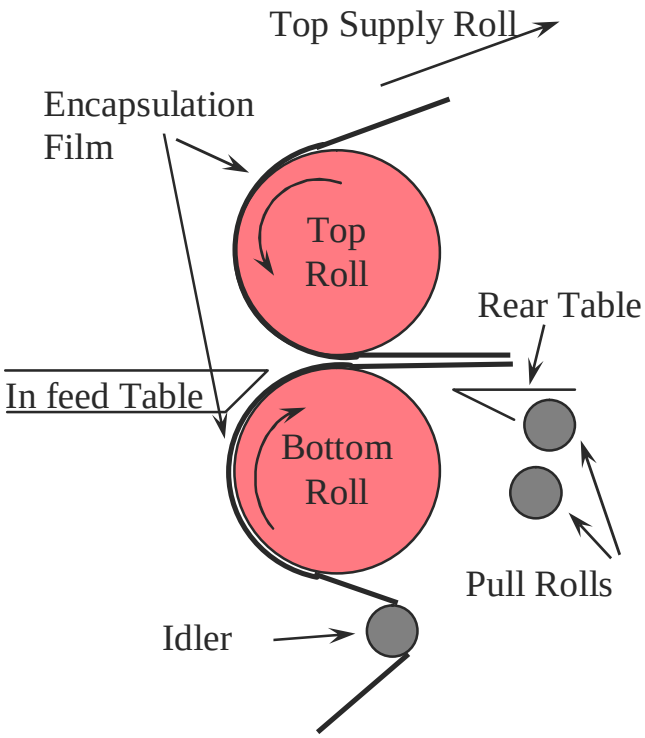
1. Remove the In feed Table

2. Place one of the encapsulation rolls on the Top Supply roll ensuring that the adhesive side faces out away from the rolls when draped over the Top roll

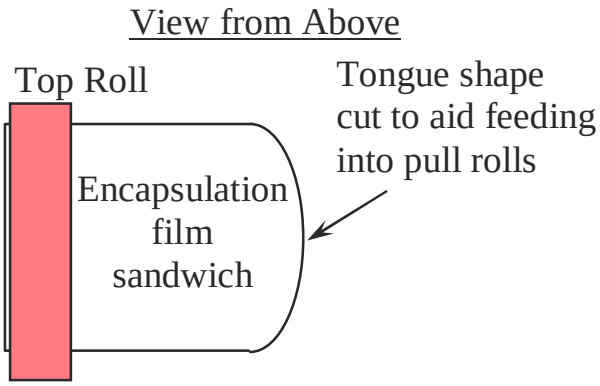


3. Place the other encapsulation roll on the Bottom Supply roll ensuring that the adhesive side does not face the bottom roll when pulled up behind the idler bar and placed over the top encapsulation material so that they adhere together.

4. Set the gap so that the rolls will touch when lowered. Push the Encapsulation media between the rolls and hold with either a thin leader board or very carefully positioned fingers, so that when the Rolls are lowered the media is trapped between the rollers (but not your fingers!)

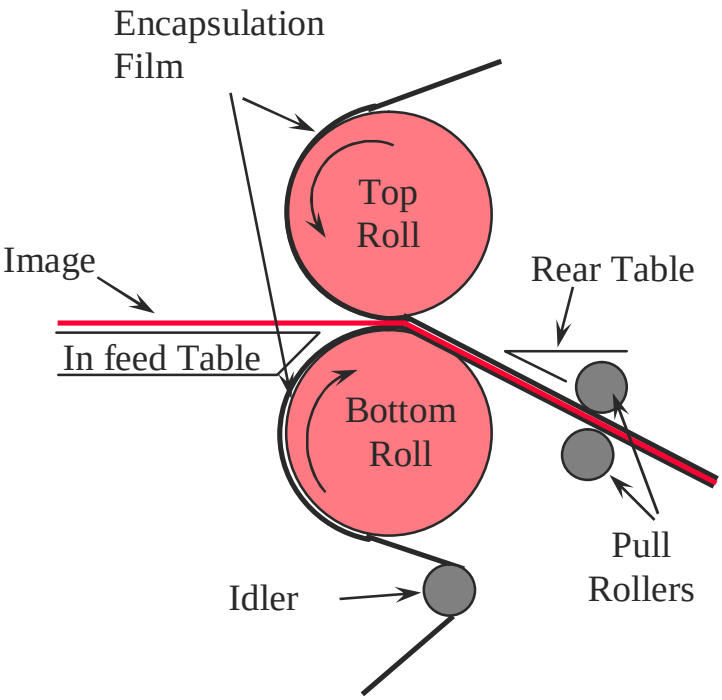


5. Using the foot controller advance the media until enough has gone through to enable you to cut the tongue shape. (on some machines cutting the tongue shape is not necessary)



6. Carefully feed the material through the rear pull rollers until the encapsulating media feeds

7. Apply the appropriate tension to both media. Lift the rolls, start the rollers and lower the rolls again. Adjust tension until no wrinkles can be seen entering between the rollers.



8. Replace in feed Table. Feed image into gap keeping the image flat. Use of table fans & feed tracks if available will make the job easier.

N.B. It is important that whenever you are using heated rolls that the rolls must be in contact and rolling to come up to working temperature, otherwise the rolls expand unevenly (therefore uneven pressure) which will cause problems when running a job.

Guideline Settings

- 3 Pass Mounting & Laminating
  - Usual pressures for mounting the materials are 50-70psi on air pressure controlled Laminators 80psi or higher can be used when boards are uneven Strain gauge type laminators generally run at the 60-85% mark, although it is recommended you consult the manual for your Laminator
  - When using heat activated laminates, use the manufacturers recommended temperature settings, this is usually 90-95°C, also check that the mounting board can be used at these temperatures

- 2 Pass Mounting & Laminating
  - Usual pressures for mounting the materials are 50-70 psi or at the 60-85% mark.
  - Both the laminate and mounting film should be the same width, or no greater than 40mm difference. Larger width differences can be used, it just becomes more difficult and may require 2-3 people helping to successfully complete the job.
  - When using heat activated laminates, it is sometimes advisable to use a lower temperature setting and run slower. The reason for this is because some double sided adhesives can expand when the bottom roller reaches a certain temperature (e.g. 45°C), causing a ridge in the finished output (normally in the centre). Different makes & types react differently, so this temperature will only be discovered when it happens.
  - When mounting onto board, usual pressures are 50-70 psi (60-85%). 80psi or higher can be used when boards are uneven.

- Single Sided Lamination
  - Usual pressures for mounting the materials are 50-70 psi or at the 60-85% mark.
  - Both the width of the laminate and the image being laminated should be within 40mm of each other.

- Encapsulation
  - Encapsulation is the trickiest of the processes covered. The general rule is to use as little pressure and tension as possible. Temperatures depend upon medium being encapsulated.
  - Both encapsulation films should be the same width.
  - Inkjet material must be thoroughly dried before encapsulation or you may suffer from silvering (water steaming out from the image preventing the molten glue adhering to the imaged media).
  - General temperature ranges 95-105°C. With inkjet try to keep below 100°C

Please don’t hesitate to contact us with regards to consumables and technical support, we will be glad to help, contact details below.

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