

Finishing Tips

Laminating and Mounting Challenges



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Mounting and laminating pose some interesting challenges with certain applications. It's important to choose the right lamination film for the job.



For many laminating and mounting jobs, get a laminator that can handle hot or cold films. Our laminator gets a lot of use.

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How to tackle some of the most difficult lamination applications.

By Dave King

A great number of people in the large-format digital printing industry have laminating equipment; and of these, most have no problem with common applications such as laminating and mounting a print to rigid boards. But what about those *other* jobs — the laminating jobs that, trust me, most of us do *not* like to do. Here's a look at some of the most challenging laminating and mounting jobs — and how to go about tackling them.

ROLL-UP GRAPHICS

The biggest challenge with roll-up graphics is making them so they don't curl. Roll-up graphics have become a major part of the trade show and presentation graphics market. We sell more than 30 roll-up stands a month today compared to about two a month a year. We try to always sell fabric for our roll-up stands because fabric doesn't easily rip, bend or tear — and it never curls.

However, when fabric isn't acceptable for a roll-up graphic, the next best product would be a 100 percent plastic product — a thin, reverse-printable plastic-based inkjet printable media is great. Then laminate with a nice thin, cold film, preferably something with a non-glare finish. Thin films with a pebble finish look great too.

The key is to laminate with a cold film. I find that most laminates that are applied hot tend to shrink a little, so if you're laminating a roll-up with a hot lam it will tend to curl. But when laminating the print with a cold laminate, there is no shrinkage, and therefore it will curl less. I have found that when using a thin vinyl laminate for the top of the print it's best to use the same laminate on the back of the print; this will further reduce curling and also strengthen the print.

Paper prints can also be used for roll-up graphics, though it's my least favorite media

for this application. In any case, the same rule applies — use the same thickness of laminate on the top and back of the print to help minimize curl. Keep in mind, paper tends to curl naturally. Paper can also tear, kink and delaminate at the edges.

My final recommendation for roll-up applications is to sled prints as they're laminated. A sled is a 6-mil piece of Sintra (or something very strong and flat) that is used as a rigid surface when laminating the print. Set up the laminator with the sled in the roller and the laminate on the top roller. Put the print on the sled and run it through the laminator. This process keeps the print flat all the time and keeps curling down to a minimum.

The process of creating curl-free roll-up stand graphics is easy for some, and a nightmare for others. Good luck. Use the best materials. These stands need to be able to take a lot of abuse.

DOUBLE-SIDED PRINTS

I've always found it difficult to laminate and mount double-sided prints. Most people who are in this business know to mount prints to the correct board size, but when doing double-side prints, they need to make double sure they're not mounting the second side upside down — it's an easy mistake to make!

Also, make sure that the graphics are made slightly larger to ensure enough bleed to mount without getting white along the edge — also an easy mistake to make!

For those of us who use a digital die cutter, the issue is remembering to print without bleed on one side and to include bleed for the other. The prints for the first side are made on a rigid sheet with cut marks and the cutter is so exact it requires no overbleed — simply cut out all the prints on that sheet at once. But for the second side (which are

FACE MOUNTING TO CLEAR



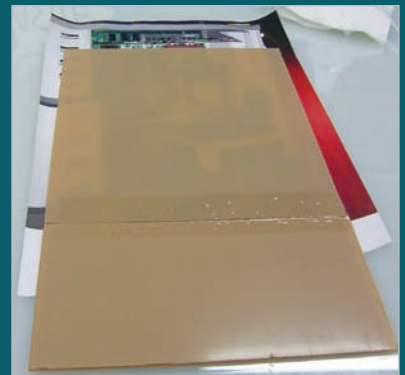
1) Face mounting is a difficult task, but not impossible. Attach a leader board to the mounting board at the end where the mounting will start.



2) Mount the area of the print that is outside the printed area to the leader piece, then mount the print to the board. The leader board will take all the bubbles and by the time the laminator gets to the actual clear board the prints should be flat, smooth and bubble free.



3) When running the print through the laminator, use compressed air to force all the dust away from the board.



4) The print is mounted and ready for trimming.



5) Trim the print.



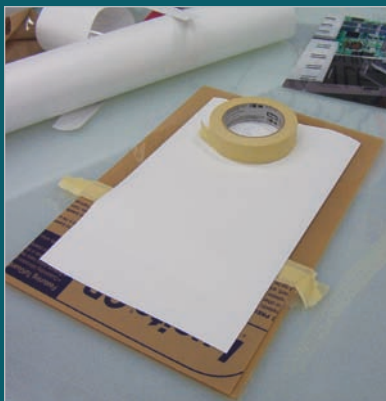
6) Trim off the portion with the leader board.

Finishing Tips

FLOATING FACE MOUNT



1) Float mounting is about the most difficult mounting job out there. Trim the print on three sides and place masking tape down to the leader point, where the image begins to float on the board.



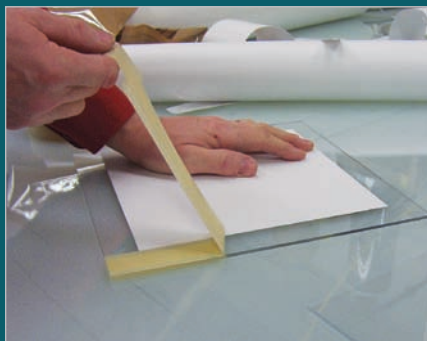
2) Tack the print down on the masking tape, lining it up square to the center of the board.



3) Feed the board into the laminator on the masking tape side, fold the print up. Though not shown here, it's a good idea to use compressed air to clean the surface as the print runs through the laminator.



4) Lay the print on a light table, lay a straight edge on the print along the edge where the tape ends and the print begins. Be sure not to cut into the board.



5) Remove the tape. Voila!



Labors of love. Here is our finished face mounted job (left) and the dreaded floating face mounted job. After all that effort, they both look great!

generally mounted by hand), the images will have to be over-bleed to make sure you have enough color off the edge of the board.

Now for the laminate issue: some laminates do not work well with all the tools on a digital die cutter, so, for example, a person might have great success with foam board and luster laminate, but crystal lam and Sintra might not work well together. The reason is that the tougher Sintra requires a router tool and the foam board requires a drop blade tool and these tools react differently with the laminates. So be careful and test laminates with the digital die cutter tools to make sure they work together.

A FEW BASIC TIPS

Mounting and laminating can make or break any job, so here are a few basic things to keep in mind when running the shop.

- 1) Paper prints work best with a hot vinyl laminate films (they look great and save money).
- 2) Vinyl prints work best with cold laminate films (pressure-sensitive films).
- 3) Compressed air is a great cleaning tool to use when mounting to rigid boards.
- 4) Always allow more time than you need for jobs you're not experienced at doing.
- 5) Keep reading *Digital Graphics* magazine to be more successful!

FACE-MOUNTING TO CLEAR

For me, face-mounting a print to a clear substrate is the most difficult of all laminating and mounting applications. I do not like doing this work and don't know many who do. This is the process of adding a very expensive optically clear adhesive to the face of a printed image and then mounting this to a clear piece of substrate so the image can be seen through the clear substrate, as if behind glass.

The first step is to run the print through the laminator and apply the optically clear adhesive to the print. Optically clear adhesive costs about a dollar a square foot and the print will often be a Duratrans backlit film that is also very expensive. If you can get the print through the laminator and get the optically clear adhesive onto the print without getting one speck of dust on the print, you're halfway there.

Now the print must be mounted to the clear rigid substrate like acrylic sheet or Plexiglas — this is the hard part. Normally when mounting a print to a rigid board there are always small invisible bubbles between the print and the board. However, when applying a face-mount to a clear board, the bubbles will be seen by all. The solution is to use a leader board.

A leader board is a piece of the same material being mounting to (acrylic or Plexi). It is attached to the mounting board at the end where the mounting will start. Mount the area of the print that is outside the printed area to the leader piece, then mount the print to the board. The leader board will take all the bubbles and by the time the laminator gets to the actual clear board the prints should be flat, smooth and bubble-free.

Now this does not mean you will have a perfect print — no way! I bet 50 percent of the prints will have some visible artifact in them. Wipe the board 10 times and it will still get stuff between the adhesive and the board. My trick is to use 70/30 isopropanol alcohol and a clean cloth to wipe the print before attaching the leader board, then wiping it again just before mounting the print.

As the print runs through the laminator, use compressed air to force all the dust away from the board. Air is running 100 percent of the time as the print runs through the laminator. This trick works 90 percent of the time. The edges will still need to be dealt with; this might take the back of a fingernail to squeeze the air out of the adhesive.

FLOATING FACE MOUNT

Okay, if you think *that* was difficult, what about floating a face mounted print in the center of a custom-made, rounded piece of Lexan — with only one shot to make it work. Oh yeah, this is the good stuff. But don't sweat it, here's what to do.

First, do everything the same as when face mounting to clear, but put something on the Lexan to prevent the print from being stuck to the area where you don't want the print. An example would be mounting a 20" x 28" print on a 22" x 30" piece of Lexan. The customer wants to have 1" edge of clear Lexan showing around all sides of the print to the edge of the Lexan. It sounds simple, but it's not.

First, trim the print down to the color on only three sides (trust me, this is going to work). Start mounting from the side with the extra material. Now use masking tape and tape off one inch of the Lexan at the

bottom so the print will not stick to this area. Next, use this masking tape area as the leader area. Peel back the release liner from the untrimmed side of the print, and tack it down so the print lines up perfectly at one inch in on all sides.

Now, tack down the print to the masking tape at the bottom. Take the Lexan sheet to the laminator and clean it (again) with alcohol. Use compressed air as we did in the previous section and run the sheet and print through the laminator.

Next, use a fine cutting blade and straight-edge ruler to cut the bottom off the print along the color, preferably using a light table. *Caution: Do not cut through to the Lexan.* Any cuts made in the Lexan at this point will be pretty noticeable by the client. Believe me, no one wants to do this job again.

Peel off the masking tape along with the leader piece and reveal a perfect floating face print! Sound easy? Guess what, I have been doing this for 14 years and I still screw it up!

Remember that adhesives are a huge part of the success of long-term graphics. The price of good quality acrylic adhesive is around \$.40 a square foot. Less expensive adhesives run about \$.22 a square foot. The acrylic adhesives are made for all boards that are not paper-based, such as Sintra, DiBond, Lexan, acrylics, etc. Non-acrylic adhesives are good for short-term graphics and mounting to paper-based graphics. When doing backlit films, use optically clear adhesives, which are very permanent and very expensive. Be careful out there. Be smart with your money, and I'll see you on the show floor.



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