

## Attending To The Details Of RC Enlargements Or, "Two-stepping Is More Than A Western Dance"

By Chris A. Paschke, CPF

The intimidation and fear many framers feel when attempting to mount a photograph seems the perfect subject for this month's issue on mounting. There is something about the chemical makeup of photo emulsions that breeds fear in the hearts of otherwise stable and knowledgeable framing professionals. Perhaps it's that many of us know little or nothing of the basic techniques and developing of photos...what's it they say about "a little knowledge"?

It's a safe assumption that the basics of mounting a standard RC photo differ from fiber based or Ilfochrome mounting procedures, because the photo papers and developing processes are different. Even when accepting the above as fact, we often ignore that RC enlargements often require slightly different handling and mounting procedures.

### RC PHOTO COMPOSITION

The non-breathable nature of RC photographs must be of utmost concern during any mounting. Whether spray, pressure sensitive or dry mounted, the issue remains that trapped moisture or air could create interior bubbles and destroy a potentially good presentation.

RC (resin coated) photos consist of a basic paper core with two coated sides of polyethylene and a single-sided topping of surface emulsion. The resin coating that is

designed to protect the paper from water absorption during developing both prevents air from being compressed through the photo during mounting and makes the photo resistant to adhesive absorption. Adhesive absorption is what assists in creating a good lasting bond when mounting.

### RC MOUNTING OPTIONS

A breathable mounting adhesive is required for non-breathable artworks, as well as one aggressive enough to compensate for the lack of bonding absorption. For dry mounting, a permanent (bonds in the press as it reaches temperature), breathable, tissue-core adhesive is suggested (ie: ColorMount, Trimount, TM2) for all sizes of RC photo, especially when mounting in multiple bites.

Photos easily tolerate temperatures in excess of 225°F, which is why they may also be laminated, so any fear of mounting them at the lower average bonding temperature of 185° to 190°F should be mitigated. Though there are many ways to successfully mount an RC photo, dry mounting remains the most long term.

Pressure sensitive adhesives (such as 3M's Positionable Mounting Adhesive (PMA) or Crescent's Perfect Mount) are probably the best alternative to dry mounting. In fact, pressure sensitive applications might provide the best solution for coping with the problem of textural orange-peel, an undesirable side-effect of dry mounting.





## mastering mounting

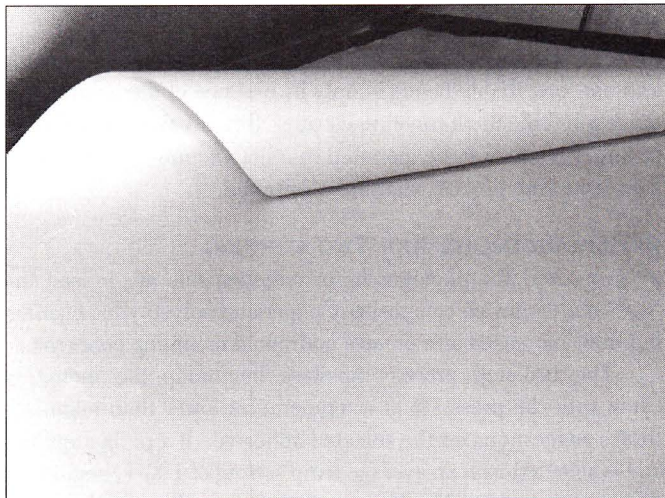


PHOTO 1

The release sheet should cover the entire bottom and top of the press to protect the platen as well as the rubber base beneath from adhesive and to prevent indentations in projects.

### TROUBLESHOOTING PHOTOGRAPHS

Far too much emphasis is placed on the fear of over-cooking the surface emulsion of RC photos, when framers should pay more attention to proper handling of photos and use of clean, non-wrinkled materials. Having to replace a \$500 40"x60" photograph will rarely be found under "incidentals" in your company budget.

On a valuable photo enlargement it is a good idea to use new, unwrinkled release paper. The paper should cover the entire 40"x60" foam substrate, not just the photo area of the board during mounting (photo 1). Any edges that do not cover the entire top of the substrate could imprint into the foam, and even if it is to be covered by mats, it makes for a sloppy job and bad habits.

Sizing the release paper is almost as important as aligning the image on the board straight. A new wrinkle or crease created while sizing will

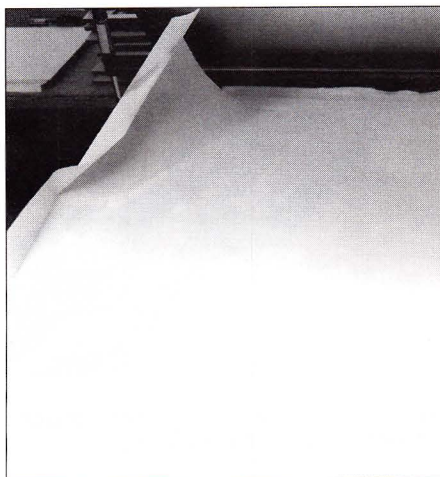


PHOTO 2

To size the top sheet, lay the slightly oversized release paper sheet in the press for final trimming...be extremely careful not to create careless new wrinkles! Counterrolling the sheet prior to final trimming is indicated by the folded edge.

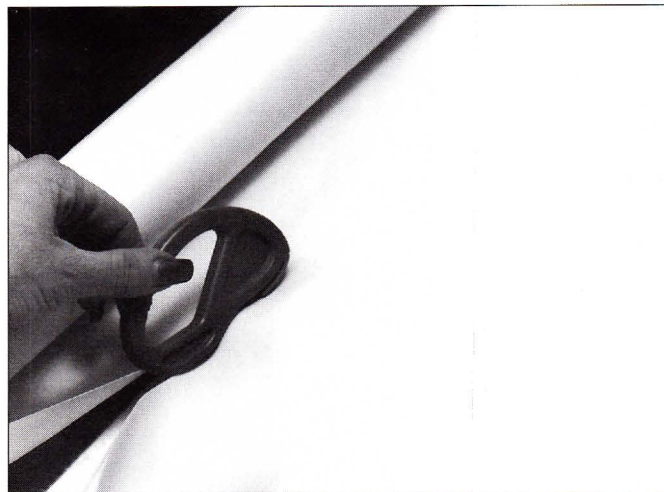


PHOTO 3

Trim to actual size, inside the foam borders, with a non-exposed blade trimmer.

damage every bit as much as one that's a "ghost of mountings past". Since single sided release paper is rather stiff and resists lying flat when unrolled, the challenge is to size, cut and flatten the sheet *without* creating any unwanted creases, dents or folds in the newly sized piece.

Roll out or cut a piece of release paper a few inches longer than the desired 60" length. Since the silicone material (pale blue color) faces the inside of the roll, fold a 3" crease into the end away from the blue side. This stiffens the end enabling you to counter-roll the sheet in the opposite direction to flatten it (photo 2). Without the fold it is easy to accidentally create permanent creases in the new sheet, damaging it for the photo job. Lay the sheet face down in the press (this will become the top release sheet) for final sizing. Using a trimmer with a non-exposed blade (ie: Snitty, Zippy, etc.), remove any excess paper (photo 3). It should measure larger than the 40x60" substrate but smaller than the press borders. Breaking the vacuum seal with a release paper edge will prevent proper pressure.

Clean between each layer of substrate, adhesive, photo *and* all release materials. Handle photos with gloved hands and wipe between each layer to check for dust particles which could cause tiny pin holes in the finished mounting (photo 4). Tack in position at one point only (photo 5) and check the temperature is set at the desired level.

### MECHANICAL PRESS BASICS

The smaller platen area of a mechanical press heats articles from the outer edges in towards the center. The unit compresses most of the air from between photo, adhesive and substrate layers as soon as the arm is clamped down into the locked position, and once closed immediately begins to heat up to the required bonding temperature.



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PHOTO 4

Clean all layers by wiping between each with a gloved hand. Handling all photos with gloved hands will prevent hand oil and finger grease from transferring to the emulsion.



If selecting a permanent, breathable adhesive for a photograph, avoid setting the temperature too high, for average general mounting temperatures might indeed be too hot for best photograph mountings. Set the press at the lowest manufacturer's indicated temperature. Since projects heat from the outer edges into the center, and the outer edges of the mounting may bond any permanent adhesive prior to its center. This could trap any remaining air as a bubble.

Although most of the air between photo and substrate is eliminated during press closure, final bond occurs as any remaining air is forced through the breathable adhesive and substrate to create a bubble free bond. Though air may be forced through breathable adhesive, it is slow and about as effective as blowing air through honey with a straw.

### VACUUM PRESS PROCEDURES

Based on the theories of bonding in a mechanical press, let us consider the differences and problems surrounding RC enlargements in a vacuum system. The air within a vacuum press must be sucked out during the first minute of the 4 to 6 minute mounting cycle. During that time the project sits within the press beginning its heating activation.

If the surrounding outer edges of the photo and adhesive are activated and bond prior to the vacuum being pulled, the edges might bond leaving air trapped under the center of the photo. The solution involves delaying the physical bonding of a permanent adhesive until after the vacuum has removed the

air from within the press.

Air is compressed more easily from between small photos and non-breathable layers simply by essence of the shorter distance a bubble must travel to escape. But any time an 16"x20" or larger photo is to be mounted in a hot vacuum system a two-step mounting process should be initiated.

### RC ENLARGEMENTS AND TWO-STEPPING

Over-sized RC photographs or enlargements are indeed the same sandwich composite of paper and polyethylene coating, but their increased size creates additional mounting concerns.

The two-step process involves beginning the mounting cycle with the press set at a temperature lower than manufacturer's suggestions for the selected adhesive. If a permanent tissue is selected with an average temp setting of 180°F, begin with the press set at 160°F. This prevents any melting of the adhesive until the vacuum has pulled all the air from within the press.

Once the mounting package is positioned in the press, turn the press up to required minimum mounting temperature, from 160°F to 180°F in the sample. In the 5 to 6 minutes it takes to heat a press to the higher required temperature, the vacuum will draw and remove all inner air and adhesive activation/bonding of the outer edges of the photo will not begin until well after the press has initiated proper even pressure to the mounting.

### PREPARATION AND RELEASE MATERIALS

Some manufacturer's recommend 2 to 3 sheets of thin release paper be used on top of large photos when mounting, rather than using two temperature settings. The additional layers add



PHOTO 5

Tack in only one spot even though this is a very large piece. If properly placed and tacked...it will hold well for final mounting.



## *mastering mounting*

to the bulk within the press unit, slowing the heating of all mounting materials, which in turn slows the activation of adhesives. If permanent tissues bond as they reach temperature, and the time to reach the temperature is extended...there is then additional time for all the excess air to be compressed from between all included layers. Makes sense!

Another option is to use a release board rather than release papers on the top. The additional weight and bulk of the board not only slows the bonding time but the added weight also helps compress the air. Manufactured release boards showcase a high degree of orange-peel, so that needs to be considered. Making your own release boards from smooth 4ply and single sided release paper will better control some of this texture.

### **MORE TO HANDLING**

**A**ir bubbles under photos are generally the result of adhesive that has set the outer edges prior to adequate pressure (P) which removes air and shifts the edges as it flattens. Turning the press up, putting the project back into the press for more time (T), or punching a hole to let the air out from the back will never allow the edges to shift to release the dome of air beneath. Two-step temperature mounting when using a press is sometimes the only answer.

There's more to mounting an enlargement than simply having a large enough press. Even with all of the materials cut to size and aligned properly; even when using Z-method tacking and non-creased release paper; even when you do everything else right...if there are fingerprints or dust particles left in the press to create tiny pin holes or worse, an air bubble in the center of your mountain, the project has failed. ■

Attend to those details and I'll see you next month!

*Chris A. Paschke, CPF, owns Designs Ink, Oxford, Connecticut, featuring commercial and custom framing, product consultation and design. Specializing in mounting, matting and design creativity she works with numerous industry leaders including Bienfang, Crescent Cardboard, Fletcher-Terry, Larson-Juhl, PFM, PPFA, and Seal Products.*

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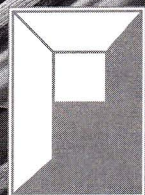
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