

# MASTERING MOUNTING

## Troubleshooting Your Mechanical Press

by Chris A. Paschke, CPF



*Chris A. Paschke, CPF is the owner of Designs Ink in Oxford, Connecticut, specializing in commercial framing, design, consultation and education. Ms. Paschke is a second generation, self-employed professional picture framer who teaches, lectures and demonstrates at various workshops and seminars on mounting, matting and design for numerous manufacturers, distributors and associations including Fletcher-Terry, Dahle, TruVue Miller Artboard, Bienfang, Larson-Juhl, PFM, PPFA and Seal Products.*

**T**roubleshooting defines as “locating and correcting sources of potential problems in any flow of work”. The best place to begin the search to track down or troubleshoot mounting problems within your mechanical press is to begin with the four basic mounting elements.

During the first half of 1992 I wrote a series of articles covering these four major elements; time, temperature, pressure and moisture. The very essence of dry mounting lies within the dependability of the process to produce predictable perfection time after time. If you ever begin to see slight inconsistencies or irregularities in your mounting projects, go back to the four basic elements and check your steps.

Quite simply, if your time and temperature are in proper ratio to each other, if you consistently pre-dry all mounting materials, and the pressure has been adjusted to accommodate the substrate being used, the problem probably originates from wrinkles, adhesive residue or tiny dirt and particles being caught within the mounting package or on the press platen.

### Materials Maintenance

The pressure within a press required to dry mount may indeed transfer wrinkles into the more pliable foam board substrates from over-worked release papers (see “Retiring Your Release Paper”, PFM

November 1992). Negligence in routinely checking these same release papers for remnants of adhesive may allow bits or strips of remaining adhesive residue to be inadvertently transferred to the surface of an ensuing project.

Dirt and dust particles, often a result of static electricity or placement of mounting equipment too close to mat cutters or saws, may locate themselves within the environment of the mechanical press dormant awaiting an unsuspecting mounting project. These particles may create tiny indentations or pin-points on the mounted surface and into the substrate. These pin points are always *most* obvious on dark posters and photos and are both visually distracting and annoying, though they, in no way, affect the permanency of the bond.

To avoid over-worked, wrinkled sheets, begin troubleshooting your mounting process by keeping an eye on release materials and regularly wipe these same sheets with a clean, soft, lint-free rag to remove bits of unwanted adhesive and dust particles. Good lighting is imperative to be able to see alien dust particles which will show up under *any* surface, but always a dark surface far worse than a light colored surface. Quite often “good mounting practices” simply come back to “good common sense”.

It is also extremely important to

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constantly check the release materials during the course of the day. Any individual project may be the culprit responsible for adhesive left on release papers. Check between mountings if over-sized or pre-mounted adhesive procedures are routinely being used.

## Equipment Maintenance

Be sensible and create a daily routine of wiping down the inside of your mounting equipment prior to use. This cuts down on dirt and dust particles looking for a place to relocate. Also keep the press closed when not in use to avoid dust and particle build-up. Just as with your mat cutter, daily cleaning and nightly covering will set the stage for control over your work rather than allowing the materials and equipment control you.

Keep in mind that you are only as good as your materials. The same goes for your equipment.

Protection or preventative measures to ensure easy maintenance procedures are always a good idea. Wrapping your lower sponge pad with single-sided release paper will

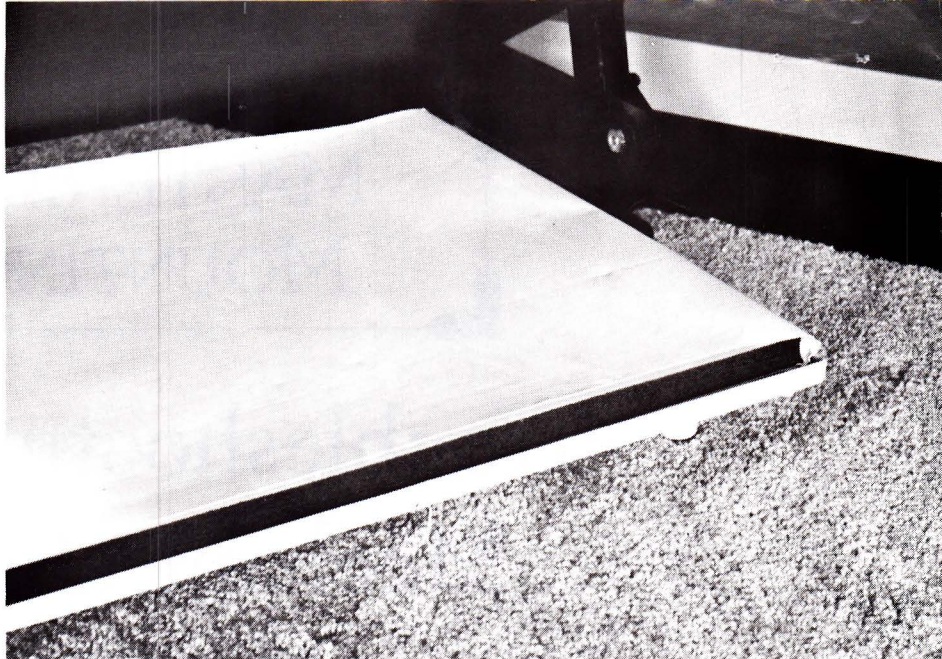


Photo 1. Wrap the sponge pad with single sided release paper to protect it from adhesive and laminating films.

protect it. (Photo 1). If a project were to be accidentally mounted without a release envelope, edges of adhesive could be physically mounted to the felt layer on top of the pad or the platen.

An excess of adhesive residue on the sponge pad could not only create a messy situation, but if the adhesives are removable ones (those which reactivate with the reapplication of heat) they may also restrict the foam from conforming to the shape of the item being mounted. This could essentially result in a poor mounting due to inconsistent pressure against the platen, possibly encouraging center bubbles.

Routinely using a release board with a mechanical press will ensure two things. First, assuming the pressure arm is in proper 45 degree adjustment (Photo 2), it will dissipate the pressure at the point where the two plates bite together and will prevent denting the foam board during a multiple bite project ("Biting The Art That Feeds You", PFM Sept. 1992). Second, it will always protect the platen from possible adhesive contact if an envelope is forgotten during a mounting as a result of the "time is money" syndrome.

It only stands to reason that if release paper can transfer wrinkles to a mounting project by the very essence of the added bulk and texture of its wrinkled paper, then the alien texture of adhesive residue remaining on the surface of the mounting press *platen* may also transfer the same type of pattern.

Though it is true that use of a release board will create a barrier between adhesive stuck to the platen

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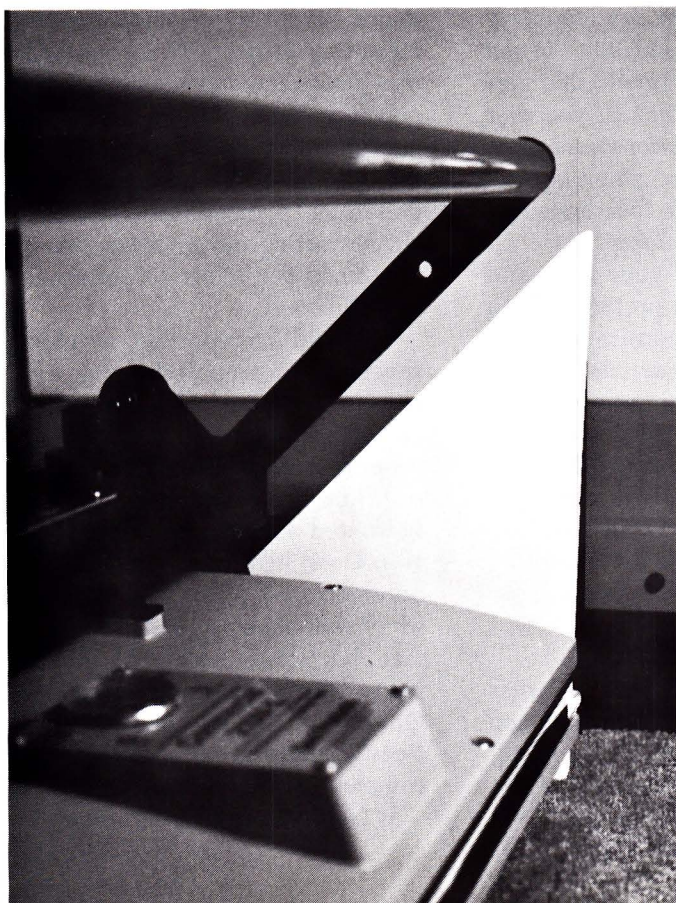


Photo 2.  
Cut a 16" x 16" square foam board, score diagonally, and use as a guide to establish the proper 45° angle of the pressure arm.



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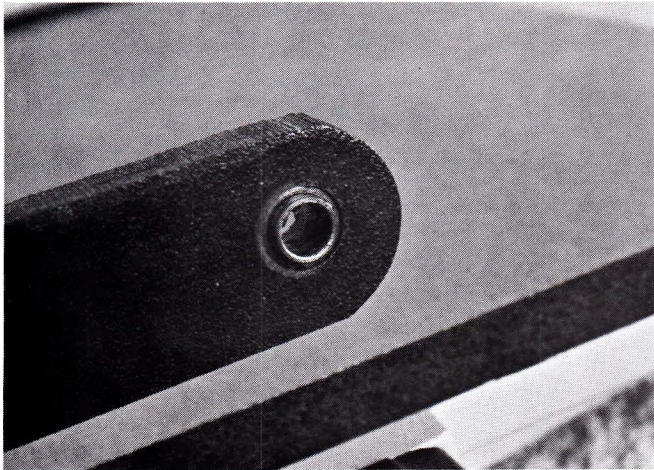


Photo 3. Inspect the placement of the hex bolt, nuts and washers to ensure proper reassembly. Note where everything fits!

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and the project, and that release papers would also often prevent a transferred texture, there are always the times it could still occur.

## Cleaning The Platen

If your daily examination of the platen (through wiping with a lint-free rag and running your hand across the cold surface) indicates particles or adhesive, it is imperative to remove them. Trusting in the theory that the release paper or board will defer the transfer of adhesive texture into the surface of a foam board substrate is only a temporary "fix".

Adhesive residue is easily removed by using an adhesive solvent (i.e., UnSeal, Bestine thinner, Toluene). Make certain these are used in a well ventilated area. Never use any abrasive materials on the platen. Sandpaper, steel wool or sharp objects could permanently scratch the platen surface; then these scratches could also be transferred to the mounting project.

Minor adhesive build-up can sometimes be removed simply by heating the press to about 200 degrees, then shutting it off, and leaving it clamped closed with a sheet of kraft paper in direct contact to the platen overnight. As the press cools down, most of the adhesive will transfer to the paper to be removed in the morning. If additional residue remains, a non-abrasive pad may be used with platen cleaner cream.

## Unhinging The Press

If the platen is in need of massive attention due to lengthy neglect or long term build-up, the hex bolts and nuts located on the lower arm of the press may be removed allowing a full opening of the press. (Photo 3). Always remove the lower bolt

and be careful to inspect the placement and exact order in which the washers, bolt and nuts need to be replaced. (Photo 4). Once the lower bolt has been removed (both  $\frac{9}{16}$  and  $\frac{5}{16}$  are required for the 210M in the photo) and the top is laid open like a book, platen accessibility for application of solvents and creams is quite easy. (Photo 5).


In Seal mechanical presses prior to 1980, the hex bolts and nuts were pins with a C-clips (retaining rings), though the unhinging process and book opening of the press remains the same.

## Wrap-Up

Troubleshooting merely suggests using dominantly unwrinkled release materials, good quality mounting adhesives and substrates, and a clean platen free of adhesive residue.

Basically speaking, it is important to keep all your equipment in good, clean, working order and in most cases that

means regular, often daily, maintenance.

As long as good mounting principles are being practiced *and* you maintain that watchful eye and keep everything clean, you have no reason not to expect mounting perfection all of the time. 

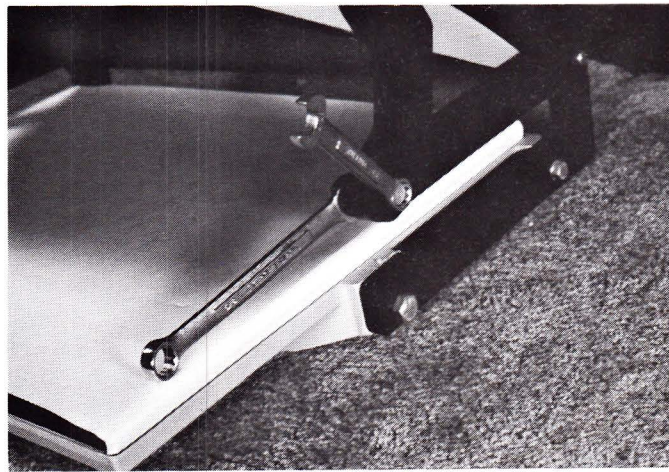


Photo 4. Two different sized wrenches are required for this 210M-X. Only remove the lower hex bolt to open the press like a book. Don't lose the pieces!

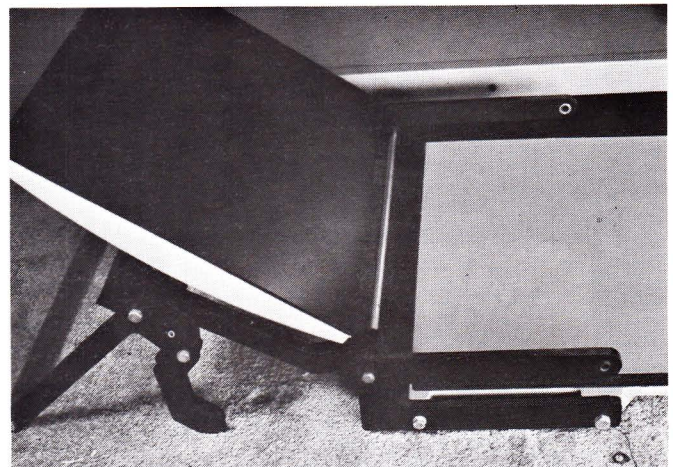


Photo 5. Open the press by rotating the upper platen piece carefully to expose it for cleaning like an open book.