

Mastering Mounting



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Press Maintenance: The Care and Feeding of Mounting Equipment

You eat right, exercise and take vitamins... the good life, right? So why do you still have those days at work when everything seems to go wrong? As healthy as you may be, perhaps you aren't taking the appropriate steps to ensure the health of your equipment as well. Proper "care and feeding" of all your special animals (i.e., computerized mat cutter, underpinner, wallcutter, and

mounting press) will improve their performance and, often, their temperament. Regular equipment maintenance is every bit as essential to a smooth, flowing framing operation as good nutrition is to your body's operation.

What Can Go Wrong?

In order for your mounting jobs to be consistently successful, all equipment and materials used on a daily basis must be properly adjusted and free from excessive wrinkles, dirt, and scratches.

Too much pressure within a mechanical press can easily transfer creases into pliable foam board substrates from overworked release papers. Negligence, or lack of routine checks of release materials for rem-

nants of adhesive, may allow bits of remaining adhesive residue to be inadvertently transferred to the surface of the 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 with the environment of the mechanical press, awaiting an unsuspecting mounting project. These particles may create tiny indentations or pinpoints on the mounted surface and into the substrate. These pinpoints are most obvious on dark-colored posters and photos and, although they don't affect the permanency of the bond, are visually distracting and simply annoying.

Begin troubleshooting your mounting process by keeping an eye on release materials to avoid overworked, wrinkled sheets and by regularly wiping 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 dust particles which will show up under any surface. Quite often, good mounting practices simply stem from good common sense. If you cannot see the dirt, you will never be able to remove it prior to mounting.

It is also extremely important to constantly check the release materials throughout the course of the day. Any one project may be the culprit responsible for adhesive being left on release papers. It should be checked between jobs if over-

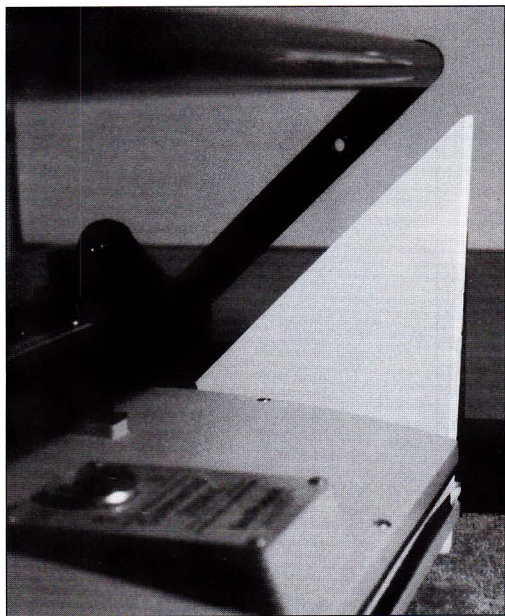


Photo 1: A softbed mechanical press should be adjusted to 45° with all layers of mounting materials placed inside. It will then apply the correct amount of pressure to mount the item. The 16"x16" square cut foam pattern is then scored diagonally to fold into an accurate 45° pattern.



Photo 2: The press platen in this photo is just waiting to either transfer dirty adhesive or pattern indentations into an unsuspecting mounting project.

sized or premounted adhesive procedures are routinely used.

The very essence of successful dry mounting lies within the dependability of the process to produce predictable perfection time after time. If there are slight inconsistencies or irregularities in mounting projects, always return to the four basic elements of time, temperature, pressure, and moisture to hone your technique and solidify your understanding of all mounting principles.

If the time and temperature are in proper ratio to each other, all items have been correctly pre-dried prior to mounting, and press pressure has been adjusted to accommodate the substrate of choice, perhaps any visual problems are originating from wrinkles, adhesive residue, or dirt particles caught within the mounting package or on the press platen itself. This means it's time to examine the press platen or glass top.

Routine Equipment Maintenance

Dirt and dust particles may locate

themselves within the environment of a press at any time awaiting an unsuspecting mounting project. These particles, often stuck to the platen, can create tiny pinpoint indentations on the mounted surface and substrate.

Make it part of your daily routine to wipe down the inside of your mounting equipment. This will reduce the particles that settle in your equipment. Also, keep presses closed when they're not in use to avoid dust and particle buildup. Just as with your mat cutter, daily cleaning and nightly covering will facilitate better control over your work.

Properly adjusted presses (see Photo 1) will ensure proper mounting pressure, but even proper pressure can't prevent the indentation of a dirty platen (see Photo 2) into a foam board substrate. It only stands to reason that if release paper can transfer wrinkles to a mounting project, then the alien texture of adhesive residue on the platen surface of the mounting press can also transfer the same type of pattern. Although use of a release board will create a barrier between adhesive

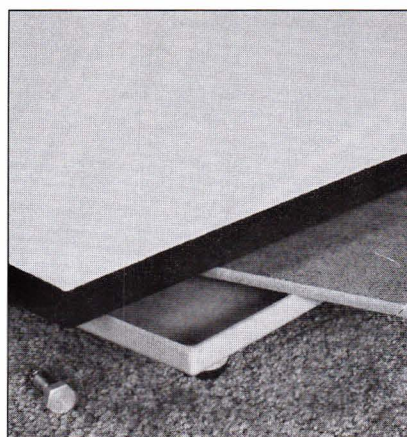


Photo 3: A healthy mechanical press consists of a 1/4" masonite base topped with a 1" soft, felt-covered foam pad. All layers must be present in order to ensure smooth, even pressure against the platen during mounting.

stuck to the platen and the project, release papers are still thin enough to transfer unwanted textures and damage a mounting project.

Make certain all parts of the mechanical press are present and in good working order (see Photo 3). There should be a 1/4" masonite panel at the bottom to smooth the surface the sponge pad sits on. The board is designed to level and smooth the base of the press. The cast metal could be uneven and that could transfer through the sponge pad to the mounting. The board is layered with a 1" soft sponge pad,

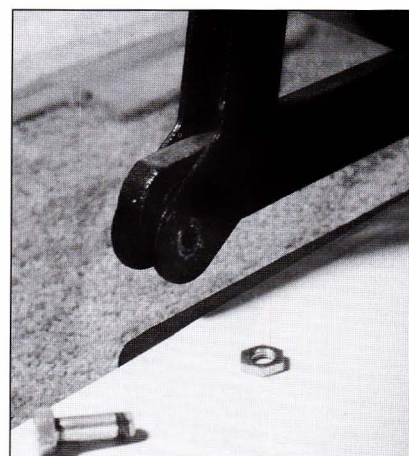


Photo 4: Remove the hex bolts and nuts on the lowest segment of the press arm mechanisms. Keep track of the order that you remove the parts so that you replace them correctly.

mounted with a sheet of felt for better air transport. If the pad is crusty or stiff, or if the felt is caked with adhesive, it will be unable to support the mounting evenly against the heated platen during mounting.

Mechanical Platen Cleaning

Some adhesive buildup can be removed by heating the press to 200°F, and then turning it off with a piece of clean Kraft paper clamped inside the closed press overnight. As the press cools, most of the adhesive will transfer to the

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paper. Remove the paper and discard the next morning.

If additional cleaning is necessary, apply cream platen cleaner to a cold press and scrub with a nonabrasive pad to remove residue. Be sure to open windows for ventilation when working, and never use blades or sandpaper that could scratch the platen surface.

Unhinging a Mechanical Press

If the platen of your mechanical press is in need of much attention due to neglect or

long-term build-up as seen in Photo 2, the hex bolts and nuts located on the lower arm of the press may be removed to allow the press to be fully opened (see Photo 4).

Always remove the lowest of the three bolts and be careful to

inspect the placement and exact order in which the washers, bolt, and nuts need to be replaced (see Diagram 1).

Once the lower bolt has been removed and the top is laid open like a book, platen accessibility for application of solvents and creams is quite easy (see Photo 5).

Release Paper Wraps

After cleaning, you can wrap a single-sided release paper around the sponge pad of a mechanical press as a simple, preventative measure to ensure a clean, felt surface. This will protect it if a project is accidentally mounted without a release envelope, allowing edges of adhesive to be physically mounted to the felt

layer on top of the pad. An excess of adhesive residue on the sponge pad could not only create a messy situation, but could also keep the foam from conforming to the shape of the item being mounted. This could result in a poor mounting due to inconsistent pressure against the platen, possibly encouraging center bubbles.

Cut a piece of release paper to the width of the pad, fold the excess paper around the ends of the pad, and tuck them between (not under) the pad and the masonite. The limp

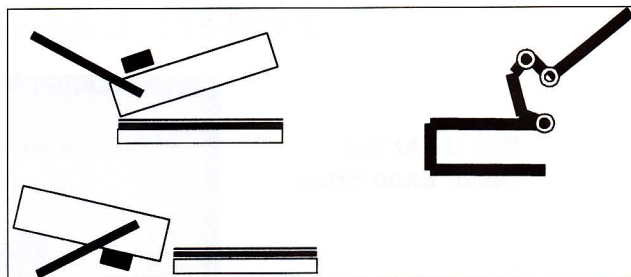


Diagram 1: The skeletal drawing on the right shows placement of the three bolts used for unhinging to open the press. The third bolt down is the one you should remove in order to open the press as the illustrations on the left indicate.

heavy nature of the pad in conjunction with the toothed back of the single-sided release paper holds without much slippage (see Photo 6). A wrapped pad is not meant to be a substitute for release materials, but rather additional insurance to protect the pad if ambitious mounters



Photo 5: Once the bolts are removed, open the top of the press like a book to expose the coated platen for easy cleaning. Remember—never use anything abrasive on the surface to avoid scratching it.

forget the critical release paper bottom sheet (see Diagram 2).

Vacuum Press Adjustments

Vacuum presses need little adjustment and maintenance once they are set up and running. Individual manufacturer manuals will reinforce all step-by-step maintenance procedures for their presses. The press should be placed in a level location and checked for level once installed.

If everything appears level but there is not adequate vacuum, check the following:

- the lid may be out of alignment to the press;
- there is a leak in the outer foam cushion; or
- release materials may be simply invading the seal.

If the lid is out of alignment, read the manual to see if the press has hinge adjustment in the back. If it does, loosen the hinges, draw the vacuum, tighten the hinges, and it may be corrected.

The vacuum portals of a press may be located at one rear corner, both corners, or center of the press depending on the manufacturer. They draw the air from within the press, and must be kept clean. In some cases, the portals should be covered with the felt liner in the bottom of the press, to work properly.

Fittings running to and from the press rarely need readjusting, but initial tightening is important. Rubber bladders or diaphragms are the soft, moldable base within the unit that conforms around the

mounting substrates to press them against the heated platen or glass. They may be textured or smooth and vary between 1½" to 3" in relaxed "drop" when not in operation. Some

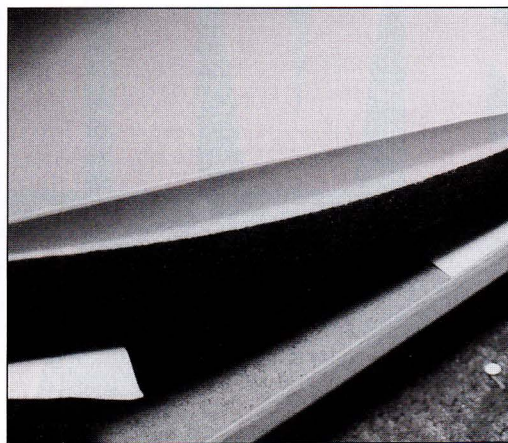


Photo 6: Wrapping the sponge pad with a sheet of single-sided release paper will better protect the sponge pad from bits of adhesive which may be exposed during mounting.

press motors need routine oiling, or occasional filter cleaning. Check owner's manual for details.

Cleaning A Vacuum Platen

If upon examination of the platen, (by wiping with a lint-free rag or running your hand smoothly across the cold surface), you see particles or adhesive, they must be removed (see Photo 7). Adhesive solvents, such as UnSeal, Undue, or Bestine thinner, remove adhesive, paper, and foam residue. Never use any abrasive materials on the platen. Sandpaper, steel wool, or sharp objects could permanently scratch the platen surface and these scratches could be transferred to later mounting projects. Make certain to open windows

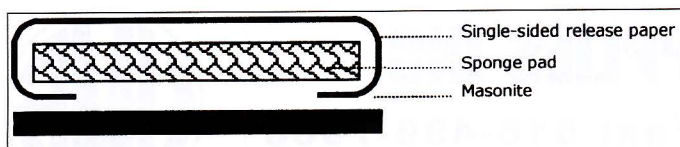


Diagram 2: A wrapped pad is not meant to be a substitution for release materials, but rather additional insurance to protect the pad in case the critical release paper bottom sheet is forgotten.

Daily Checklist

Mechanical Press

Develop a daily routine of wiping down the inside of your mounting equipment to cut down on the particles that settle in your press. In addition, keep presses closed when not in use to avoid dust and particle build-up. Just as with a mat cutter, daily cleaning and nightly covering allows for better control over your work.

- Keep the press closed, (but not locked), when not in use and cover nightly to avoid dust and particle accumulation.
- Check for adhesive residue and scratches.
- Avoid tiny dust pits and indentations in completed mountings by regularly wiping release materials with a clean, soft, lint-free rag to remove bits of unwanted adhesive and dust particles.
- Good lighting is important to be able to see alien particles. They cannot be removed if they are never seen.

Vacuum Press

In moist or high humidity areas, hoses may become blackened with residue from excessive moisture from mounting. Even with the following daily routine, hoses may remain black.

- Run an empty press first thing in the morning through one full heated cycle to blow out the hoses and draw any accumulated moisture from within the unit.
- The final press run of the day should also be empty but with the press lid open to blow plain air through the vacuum hoses. ■

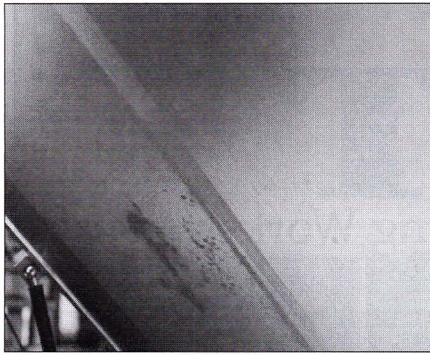


Photo 7: The long, vertical strip of adhesive residue on this platen must be removed to prevent indentations and damage to projects.

for adequate ventilation.

A commercial cream platen cleaner comes with a nonabrasive pad specifically designed for removal of stubborn adhesive residue. If all attempts at cleaning fail, perhaps the platen should be checked for scratches. It may require refinishing or replacement. Call manufacturers directly for details and advice.

Silicone residue from release materials often results in a visual discoloration on the surface of

used vacuum platens. They are generally detectable only when viewed at an angle and pose no danger to successful mountings since there is no texture to transfer indentations.

Cleaning Vacuum Press Glass

Commercial solvents will also dissolve adhesives on glass just as on platens. Since the coating for heat distribution is often on the glass side that is away from the inside of the press, routine glass cleaners, lighter fluid, and glass (window) scrapers may also be used to assist in cleaning the glass. Check with manufacturers for maintenance suggestions.

Glass may be gently scraped using the long side of a used mat cutting blade, just as you might clean dried paint from a house window. Do not use the pointed corner or the glass will be damaged.

Daily Feedings

Regardless of your choice of release materials or maintenance procedures, the important thing is to practice good, clean mounting. It is always best to work in a well lit area where you are able to clearly see any potential problems long before they occur. No matter how great your technical skills, and no matter how often you consciously check for proper use of TTPM (time, temperature, pressure, moisture), if you don't keep it clean, your press just could bite the hand that feeds it! Remember clean process = clean product. And a much happier pet.

Happy Valentines Day! Have you hugged your press today? ■

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