

Mastering Mounting

by
Chris A. Paschke,
CPF, GCF



Tackling Tacking Photographs

While researching my first book, I noted technical tips from major photography sources that were very different from the ones I promoted. The theories behind these procedures made sense, but in my opinion, the potential for irreparable damage far outweighed the theory. There are acceptable alternate methods for tacking photos and other items to better protect them from damage while still holding them in place for mounting.

What Is Tacking?

In sewing, tacking uses a long, temporary stitch to hold fabric articles together in preparation for final sewing. The same idea is used in dry mounting. Tacking is a small temporary melting of adhesive between image and substrate to hold both in place for final bonding in a heat press. The tack is best if kept small—about the size of a dime. This is true even for large posters and photos.

Why Tack?

There are many times when posters or photos may be placed randomly in the approximate center of a substrate. Exact centering is later achieved by trimming down the outer mount board edges or adding a mat. Although these projects can be placed in a press without tacking, it is always best to be certain the image will not move during the bonding process.

In a mechanical press, the pressure is applied to the project by closing and lock-

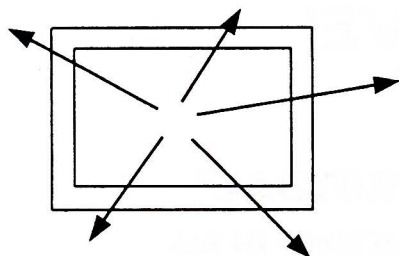
ing the lid of the press. There is no suction or air movement that occurs during this initial step, and the whole process is very hands-on. However, during the first minute in a vacuum system, air and moisture is sucked (or vacuumed) from within the enclosed system and in this way pressure is applied to the materials for bonding. It is during this time that untacked items could shift prior to mounting. Anything can shift during mounting—paper, adhesive, even fabric.

The time it takes to draw the enclosed air from within the press varies between molds. The “drop” is the space between the top of the press and the relaxed diaphragm in the bottom of the press when it is not engaged. The time it takes to remove all air from within the press during mounting depends on the distance between the heat source (glass or platen) and the diaphragm (soft bottom layer).

The shallow flexible base in a 40" x 60" Hot Glass Vacuum Press (Hot Press) allows all the air to be removed during the vacuum process within a 20-second period. The same size VacuSeal (Hunt Graphics) will take about 40 seconds, while a Corona Vacuum may take 1 full minute. It stands to reason the more space between the heat source and the pliable base, the more air needs to be vacuumed out during bonding and the longer it will take. The deeper the space, the more air there is to be drawn out and the more likely for untacked items to shift during the mounting process.

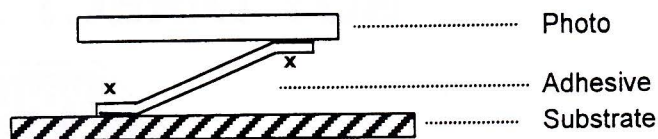
Chris A. Paschke, CPF, GCF, owns Designs Ink, Oxford, Connecticut, featuring commercial and retail custom framing, product consultation, design and education. Specializing in mounting, matting and design creativity she works with numerous industry leaders including HUNT Corporation, Crescent Cardboard, Fletcher-Terry, Larson-Juhl, PPFA, and is a recently published artist with Wild Apple Graphics. Her first book, The Mounting and Laminating Handbook, is already in its second printing and she hopes to have her second book, Creative Mounting and Laminating Applications, ready for release with the coming of the new millennium.

Mastering Mounting



Z-method

Center tacking can be dangerous, but there are safer alternatives.



Z-method tacking is designed so the iron never comes in contact with the surface of the photo.

When Tacking Is Not Required

There are times when I will not tack layers together prior to mounting (a bad habit), but generally that's only during creative applications and usually in a mechanical press. These applications are very forgiving and are generally not affected by repositioning or shifting during mounting. But it is always safer to develop good techniques and good habits. If creative things are thrown haphazardly into the press, then it is possible to forget to tack an important project, and Freddy could drop by for a visit.

Tacking Irons

The tool used for tacking is called a tacking iron. These are available from local distributors or hobby shops and come in a variety of styles made by numerous companies. They are often Teflon™-coated and some have temperature control rheostats. Be careful, even with the ones that have only one set temperature. Too high a temperature applied to a photo will leave a shiny spot on the surface during tacking. This can even occur when tacked from the back, and is caused when excess heat reacts with the emulsion to resurface it. Even posters can be damaged with a shiny spot. If a too-hot tacking iron is placed in contact with a photo, a shiny spot is nearly guaranteed. Damage can also occur if the iron is set to the correct temperature, but left in one spot too long.

Tacking irons with rheostat dials by framing manufacturers should be set no higher than 2/3 for tacking. They should only be as hot as it takes to melt the adhesive (about 200° F). If an iron is purchased from the hobby industry and is designed primarily for applying Monokote film to radio-controlled airplanes it will be

calibrated to a maximum temperature of higher than 350° F. This will both damage photo emulsions and melt foam board substrates. Check the settings to establish what is required to activate and bond the selected adhesive prior to mounting any photo or poster.

Tacking Photographs

It has been written by both Kodak in their mounting and handling information concerning photos and Henry Wilhelm in *The Permanence & Care of Color Photographs*, that during tacking the heat should always be applied to the back of the photo. This is true, but they also both agree that tacking should be in the center. Even when the temperature is low enough damage can occur. But tacking in the center is dangerous business. There are much safer alternative methods for tacking. The theory is to allow the photo, adhesive and substrate to expand or contract independently during mounting without being restricted by multiple spot-welded areas. Center mounting most definitely allows for this, but will not protect from emulsion heat damage.

Z-Method Tacking

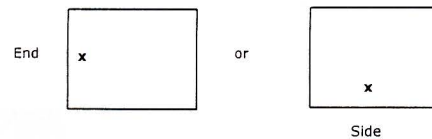
An alternative method to center tacking is called Z-method tacking. Photo emulsions, copier art, and some prints are affected by excess heat and could produce shiny spots during the tacking process if done from the face or surface of the photo. Z-method tacking is designed so the iron never comes in contact with the surface of the photo.

1. Tack adhesive to the back edge/end of the photo through a piece of release paper.
2. Align the photo to the board as desired.

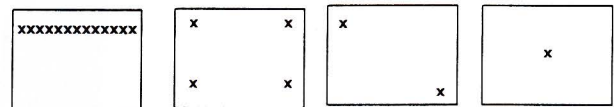
Mastering Mounting

3. Hold the photo in place with light pressure from the heel of a gloved hand, and lift the free edge of the photo to expose the adhesive on the substrate beneath.
4. Tack the adhesive to the substrate on the end opposite the first tack point.
5. Always use a scrap of release material to protect all layers from adhesive contamination.

Proper tacking methods



DO NOT tack any of these methods

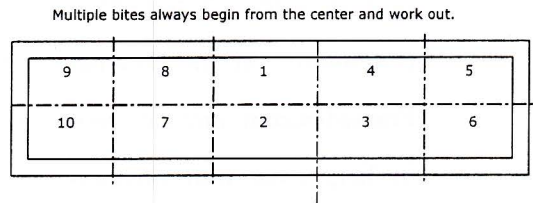
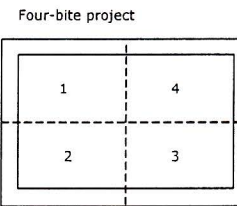
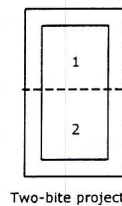


Surface Tacking

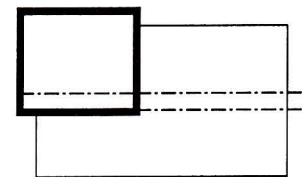
The Z-method is the safest, most recommended version of tacking, but there are times when Z-method or back tacking is not advisable. Surface tacking is the second alternative and the one embraced by most framers. It is the basic method for affixing mounting layers from the face of the project to the substrate. With photographs about the only time surface tacking will be the preferred choice is when the mounting (probably an oversized photo) requires multiple biting in a mechanical press. Surface tacking will prevent buckling of the layers during successive visits to the press.

1. Position the photo with a sheet of adhesive beneath it onto the chosen substrate.
2. Cover the spot to be tacked with a small piece of release paper to protect the surface.
3. Using a small circular motion in an area the size of a dime, tack the print through the release paper for about five seconds with an iron set on medium. This will activate the adhesive only to the point of preventing all loose pieces from shifting as they are moved to the press.

Surface tacking must be done in one spot only—along the end or side of the item to be mounted. Do not



Multiple bites always begin from the center and work out.



Overlap is allowed a little less than twice as wide as the press width.

tack along an entire edge, at all four corners, in opposite corners, or in the center. This could restrict the paper during normal expansion/contraction when adjusting to temperature and humidity changes while being mounted and create permanent wrinkles or creases in the photo.

Multiple Bite Tacking

The process of mounting photos in a mechanical press by making a series of smaller mountings is called mounting by multiple bites. The photo must be surface tacked in only one place, unlike the Z-method. This will prevent any possibility of buckled layers during bites. It is also essential to use a permanent adhesive that bonds as it reaches temperature to prevent adhesive reactivation with successive bites.

The portion of the photo that will enter the press

Eliminate holes in your walls with French Art Gallery Rods

These precision made, solid brass rods are a great way to easily hang and arrange pictures on any wall. Their elegance works equally well in both traditional and contemporary settings. Their versatility makes them optimum for galleries and exhibitions.

The adjustable hangers can simply be moved up and down the rod to accommodate multiple pictures and varying heights.

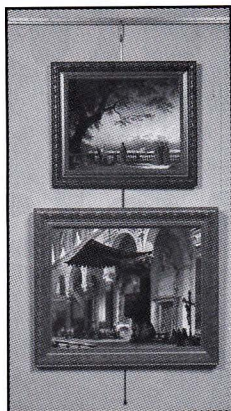
The rods are fabricated in our own plant and are available in up to 12' lengths. We can also customize a rod to fit your own molding. Each rod includes one hanger and can be used with a minimum weight of 5 lbs. and a maximum of 35 lbs. (Over 35 lbs., use 2 rods).

Description	Brass	Silver
Rods 'J'	G1210	G1213
Rods 'OG'	G1211	G1214
Rods Custom	G1212	G1215
Hangers	G1220	
J Molding	G1223	G1222
OG Molding	G1226	
Sample	G1221	



**United Mfrs.
Supplies, Inc.**

Nationwide (800) 645-7260 FAX (516) 496-7968



'J' style



'OG' style



Adjustable Hanger

RSC #150

Mastering Mounting

first is where the tack should be made. If a piece is meant to be pressed twice (two bites), tack on the end to be inserted first. Always turn the mount board completely around to mount the other side, even if the substrate is narrow enough to be pushed straight through. The board may not always fit between the back braces of the press and damage may be done to a soft foam board.

If the photo needs four bites, tack on the side of the quarter that will enter the press first. With a four-step mounting it doesn't matter whether you move adjacent to or across from the initial mounting (clockwise or counterclockwise), but always be systematic and complete the entire project once begun.

With a longer photo that's still narrow enough to be just twice the platen width, tack in the center of one of the long sides. This center-tacked area will be fed into the press first, then directly across from the initial mounting. Then move either right or left from the center to the far ends, making it much easier to ensure proper placement on the mount board as well as pressing the air from the center to the outer perimeters of the poster to prevent wrinkles.

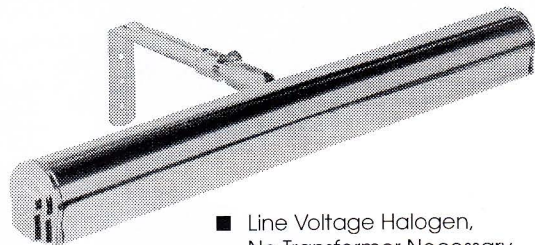
Wrap Up

The issues needed to be tackled when heat mounting photographs surround understanding the elements being mounted and their reaction to heat. Preventing shiny spots that can't be repaired is a huge issue and a very avoidable mistake. Selecting the proper tacking method, preferably from the back, and with the lowest possible heat to affix the adhesive, is the second issue.

Don't be afraid of photographs of any kind. Whether color RC, black and white RC, or fiber-based, all are simply projects that may require heat bonding. If heat is the mounting method of choice, then tacking will be part of that process. Tackling tacking is no more than simply doing your job. Just make certain you totally understand that job as well as its potential problems and its expected outcome.

If heat mounting photos still scares you, there are numerous cold mounting methods available with pressure-sensitive adhesive films topping the list of alternatives. Then you can avoid tackling tacking altogether. ■

Advent HALOGEN PICTURE LIGHT



- Line Voltage Halogen, No Transformer Necessary
- Bulb is Completely Shielded for Safety, UL/CSA Approved
- Bulb and Installation Hardware Included
- Provides White Natural Light

FOR MORE INFORMATION,
CALL US
1-800-428-5367

DISTRIBUTED BY
House of Troy
902 Silver Ridge Road, Hyde Park, VT 05655
Fax: 802-888-2942



PFM1099

RSC #85