

Laminating &

A Look at the Options

Mounting art is an important aspect of any production framing operation. Today there are a number of different machines on the market that offer a variety of alternatives for mounting. As with most equipment, there are advantages and limitations to each. In choosing which mounting technique and machine is right for you, it is helpful to look at the options and know which questions to ask before making your selection.

Any discussion of laminating and mounting equipment starts with the different techniques for mounting: wet mounting with glue, drymounting with heat-activated adhesives, overlaminating with pressure-sensitive adhesives, overlaminating with heat-activated films, and encapsulating with heated plastic films.

Wet Mounting

“Unless a client specifies otherwise, we usually suggest that a wet glue machine is the way to go for production mounting,” says Aimee Eichert, vice president of sales & marketing, Art Materials Service. “Some very large production framing clients do prefer laminators because wet mounting is not as clean or because they have different pieces they prefer to dry mount.”

Larry Roach, vice president/general manager of the Potdevin Machine Co., which makes the NTZ Gluer and Rotary Press wet-mounting system for high volume production, says, “Up to six prints can be glued and mounted



The Drytac Jetmounter JM63 is a cold-mount laminator with an optional top heated roller. It handles many types of pressure-sensitive and heat-activated adhesives and laminates.

per minute, depending on size, and glue can be applied to a flexible print or to a rigid material, such as foamboard.” After the print is mounted, it is passed through the press—a set of squeeze rollers—to remove wrinkles and bubbles.

Although speeds vary, gluers are usually faster because laminates and heat-activated adhesives require time to be applied without problem. Glues are also repositionable for a couple of minutes after coating, and glue mounting costs less than either pressure-sensitive or heat-activated mounting.



AMS roller glue applicator, which comes with a companion roller press, can wet-mount hundreds of prints a day.

“We also have an Accu-mount table that is used to align the print to the substrate using spot mounting,” adds Roach. “A laser projects a cross onto the substrate that shows where the corner of the print should be aligned. This lets you easily line up the print. After glue is applied to the back of a print, it is manually mounted to the substrate and sent through the rotary press.”

The NTZ can handle materials from paper thin up to 1/2" thick, with an adjustment of screws on both ends of the machine needed to go from one thickness to another. “The amount of glue is metered so the entire back of the print receives a very thin coating,” says Roach. “The glue used in a wet-mounting sys-

Mounting

By Patrick Sarver

A variety of machines and techniques are used to mount art in production framing. Here are the options and questions to ask before making your selection.



The Bienfang Roller Press is designed for both mounting and laminating smaller quantities.

tem depends on what's being mounted. Most prints are mounted with a cold, water-based glue—typically a water-based dextrin formulated for paper-to-paper applications. A water-based formulated resin glue would be used to mount paper to non-porous substrates like foam-board. While any type of glue can be used, it's important to remember that certain latex glues can be contaminated by brass rollers.”

Art Materials Service offers a smaller glue machine and companion roller press designed for small to mid-range production. “The drawback of a smaller gluer is that you have to refill the reservoir more often, and a larger model is more durable,” Eichert points out. “On the other hand, you don't have to clean the smaller gluers out every night because they're airtight.”

Pressure-Sensitive Mounting

Roller laminators, which usually can do both mounting and laminating with pressure-sensitive or heat-activated adhesives depending on the machine's design, range from smaller capacity production models to larger machines designed for continuous production work.

The Bienfang Roller Press, for example, has a simplified design that handles both functions for the smaller volume end of the production market. “A user can work with a heat-activated board or use a pressure-sensitive

adhesive without heat with no problem,”

says Connie Henshaw, vice president, Bienfang Framing Products.

“It simplifies the mounting process because there are fewer things to worry about, like variable heat. An application chart that comes with the owner's manual shows how to set the speed and the thickness, and that's it.

“The time that a print takes to go through a press depends on mounting technique,” adds Henshaw. “Laminating takes longer to do because it needs more heat. A simple dry mount goes faster because the heat just hits it for a minute, which is actually better for the art. And the fastest mount is with pressure-sensitive board. The rollers just nip it briefly with heat, but that's sufficient to activate the materials.

“The largest size print a framer usually mounts is 40"x60",” continues Henshaw, “so we decided on producing a 42"-wide model. And you can also do multiple pieces on one board. That satisfies probably 90 percent of the sizes you'll find in framing.”

Contract framers mostly mount artwork to foam-board, usually just a straight mounting process, says Jerry Hill, vice president of sales & marketing at Drytac/Hot Press. “For that, you would typically use double-sided pressure-sensitive adhesive. That increases speed a great deal, up to hundreds an hour. Pressure-sensitive adhesive is fed from a supply roller, and you need a take-up or wind-up roller to gather the release liner from that adhesive. That part you throw away. Some laminator rollers have two supplies and two windups; others may just have a supply roller.”



The Potdevin NTZ Gluer and Rotary Press are a popular combination used by production framers to wet mount prints.

Most laminators come with siliconized rollers, coated so that extra adhesive doesn't stick to them. "Some people also like adding heat to the rollers for heat-activated adhesive laminates," says Hill. "But for a contract framer, the typical adhesive choice for mounting tends to be pressure sensitive because of the speed."

Heat-Activated Mounting

Some manufacturers offer a range of roller laminators, with the difference being that some models have rollers with heat while some do not.

In fact, a major difference between mounting with heat-laminated films and pressure-sensitive films is the presence of heat in the rollers. Some heated rollers also have fixed temperatures while others have temperatures that can be adjusted according to the mounting film.

"A laminator has a maximum thickness you can put through it called a nip opening, which can range from $\frac{3}{8}$ " to 2", says Hill. "If you're going to run very thick material, you definitely want a laminator with a wide opening at the nip. On some laminators you can open the rollers with a hand crank; others do it pneumatically. If you do a lot of different substrates, it could be worth the cost to add pneumatic control. On the other hand, if you're always working with one thickness, such as $\frac{3}{8}$ " foam-board, you never have to change the opening. A lot of laminators with pneumatic systems also come with a thickness gauge that sets the depth automatically."

"There are a lot of options in heat-activated adhesives," says Eichert. "There is a large ranges of sheets or films that work at different temperatures and times. What you use depends a lot on what you produce."

Overlaminating

"For a production framer, laminating generally means putting an overlamine on top of a print," says Hill. "You can put it on just the print itself or you can mount the print first and then put the laminate on top. Ninety percent of framers are interested in mounting artwork compared to 10 percent who want to overlamine artwork because framing usually means putting glazing in

front of it. But overlaminating is used in a number of specific functions, like plaqueing."

Laminating with a heat-activated film on top of your

prints does let you have different types of finishes, says Eichert. "The drawback is that you don't have as many options in the finishes with hot versus cold laminates. It basically depends on the type of finish you want and the types of substrates you're working with."

Hill also points out that there are also laminators that encapsulate, but those are not that common in the framing

industry. "These are primarily used for things like menus or custom table mats," he says. "Encapsulating requires a second set of rollers that apply extra tension to the web as the item goes through the first set of rollers. The second rollers apply heat on the top and bottom to finish the process."



The Seal Pro 80, distributed by Neschen Americas, is an 80" wide laminator that can mount, laminate, and encapsulate with a variety of films, adhesives, and substrates.

Questions to Ask

Ask yourself the following questions so you can have a clear idea of your needs and be able to communicate these needs to a vendor:

- What kind of finished product do I want?
- What quantity do I want to do in a day or week?
- What is the size of the majority of the art I'm mounting?
- What materials am I mounting?
- What are my substrates?
- How wide do I need to go?
- What is my shortest dimension?

To determine which kind of machine to use, here are some questions to ask vendors:

- What are the speeds at which I can mount the materials I'm using?
- What are the thicknesses that can be used in a machine?
- What are the materials I can use in the machine?
- What kind of technical support/hotline is there?
- Is it CUL approved?
- Are there any testimonials or people who can provide referrals?
- What type of warranty is there?
- How long has a machine been on the market?
- How easy is it to figure out and fix a problem when a part wears out?

the end caps, the side panels, which can be plastic or metal. The in-feed table or exit trays or tables are made of extruded aluminum instead of heavier metal on the cheaper models. The design is also important. Do the feed tables flip up for easier access to the webbing? Do the films use a bottom roller versus having stationary in-feed tables that need to be removed? These affect the ease of loading material. Are there swing-out shafts so you don't have to lift the roller up when you add supplies to the machine? Swing-out shafts are really popular because of their ease of use. Is there control over the nip? Is there a hand wheel or a hand crank to adjust the pressure?

Analyzing Your Options

"Picking the right machine depends on how soon you want a return on your investment and what's right for your application," says Conrad. "If you're going to be

Are You Using the Right Adhesive?

"The best way to judge how good an adhesive will be is by testing it and by getting referrals about it," says Amy Eichert of Art Materials Service. "Just make sure you put it through your own equipment. And ask the manufacturer to send samples to show you what the product can do. We send out samples of adhesives so people can try them out because they like to see for themselves how they work. Laminators that put film on top of a print are more complicated. We get samples from clients, we'll send them samples, they send us samples back. We also go through a few questions to determine output. We find out what type of pictures they're mounting, what type of board they're mounting with, what type of output they want, the maximum size, and so on. Then if they want to laminate, what type of finished product they're making, how many per day or week, and if they mount every day or do batches every couple of days. There can be a lot of steps before you get it right for your operation."

mounting and not laminating, get a cold machine because it's all pressure-sensitive. If you're going to be doing single-sided lamination, you need a machine that has a single heated top roller at the minimum. If you're looking at encapsulation, mounting, and single-sided lamination, then you need dual heated rollers. As you move up in capabilities, you also get a more production-oriented machine. What you find on dual heat machines is that they have everything you find on a cold machine but with more features."

"Most people go to a catalog or a website to see what is offered," says Hill. "You can order what's in stock, although some laminators are custom-built, which would take around six weeks. If you look at 60" laminators, you'll probably get to see prices from \$1,500 to \$30,000. If you just compare features without knowing what you're doing, you'll probably buy the cheap one. But it's likely that you'll be back, buying the right one later. You can avoid that by picking vendors carefully. Then have them come in for an hour or so to understand your business and get a feel for what you want to get done. You should get presentations from two or three different vendors to compare what's available. Framers also need to look at the vendors as partners. When you share as much information as you can about your needs, vendors can help out much more."

Maintenance and Support

Maintenance on most mounting and laminating equipment is simple. "Just remember that the rollers are the heart of the machine," says Conrad. "Never take a knife to them. But do make sure the rollers are kept clean and free of anything that could damage the silicone. If you're running a lot of heat activated film and it's melting on the rollers, make sure you rub that off to keep it clear of film, residue, and buildup. Isopropyl alcohol works well—just don't use it on heated rollers."

"And when you're laminating or mounting, don't set up your wet machine or laminator next to your saw," adds Eichert. "Sawdust can be blown around, getting into your prints and causing bubbles or little marks. People have common sense about that, but they often need reminding that if too much dirt gets in your glue reservoir, you'll also get spots and bubbles on your art."

For wet-mounting machines, a simple cleaning and lubrication will keep the gluer and rotary press running for years with no problems. "Cleanup takes about 10 to 15 minutes at the end of the day. And the machine should be lubricated once a week," says Roach.

Most companies offer a certain level of training and support when you purchase a machine. "We do some formal, basic training for laminator operators several times a year at our facilities throughout the U.S.," says Hill of Drytac. "We include training as a part of purchasing a laminator and have the availability to do the onsite training as needed as well as some follow-up training."

"Our tech support helps with machine functions, maintenance, and repair as well as applications," says

Henshaw. "Anybody can call and get assistance at any time. We can walk you through most simple repairs, and if you need a part immediately, we express it second-day or sooner. We can help you with your applications and if you're doing something wrong. Sometimes people aren't sure what kind of papers they're using or they have photos or digital prints and are not sure of what adhesive to use. Or they might be trying an unusual combination and aren't sure why the laminate isn't sticking. We can troubleshoot and find out if it's a machine problem or if it's a material problem. If you're trying something unusual, we'll ask you to send the materials and test it ourselves to see how best to make it happen. And if we can't do it over the phone we send out a technician."

Working With Vendors

Most vendors prefer to talk at length with clients to help them determine what kind of machine they need as well as the specific model and features that would work best for their applications. "We interview the customer to try to help them, because if they're not satisfied with the equipment, that's not good for anybody," says Eichert. "We go over all the steps of what they do and are looking for so they can buy the proper equipment."

"You can call us direct or see our website for a list of our representatives throughout the world," says Roach. "Based on the size of the prints you're mounting, a recommendation of gluer and press size will be made."

"We consult with clients on what kind of set up they have," says Hill. "We go and look at their facilities and make recommendations for layouts and the type of equipment they need. We do business with a lot of contract framers, and everyone has a different twist on how they want to get their product out the door. We develop relationships so we can get them the right equipment without overpaying. Our goal is not to sell them a premium

package, because we don't really make a lot on equipment. We prefer to solidify our partnership so they will be pre-disposed to continue doing business with us on the consumable side."

"The important thing is for both parties to have a clear understanding of what the framing company's objective is so that they can find the right product at the right price," says Sue Doyon, product manager, Framing Division, Drytac/Hot Press. "Sometimes a framer may not need as much equipment as they think they need. Having a clear understanding and trust is really important." ■

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