

sublimation quick stop

WITH MATT WOODHOUSE & KEVIN LUMBERG



Make An Impression With Sublimated Tiles

Whenever you talk about sublimation, it does not take long for the conversation to turn to tiles. There are many amazing things about sublimated ceramic or glass tile that creates such interest. There is the stunning color and the unique look of a tiled image, but most importantly, there is the WOW factor when people see the tiles for the first time. You can almost read their minds as they think to themselves *how did they do that?*

FIRST YOU NEED THE EQUIPMENT

As with any sublimated product, you will need to start with a sublimation printer system and a heat press. The size format of your printer will determine the size of the individual tiles that you can sublimate. You can still do large murals with a smaller printer, but you will have to use smaller tiles, and sublimate more of them.

Presses are available in a clamshell or swing away (along with some variations). The clamshell press, as its name indicates, closes onto the tile as a clam would. There are different variations on the design of clamshell presses, but in general, you can have more pressure on the back end of the press than the front, due to the way that it closes. This can cause a quality variation on your tiles from front to back.

A swing-away press is preferred when pressing tiles. It is designed so that the entire top of the press swings out of the way. This can be a benefit when you are placing tiles onto the sublimation transfer, as you can look straight down to center your tile. Further, we believe that you will get more-consistent pressure and quality, and in general, the swing-away press will also allow you to press thicker items.

There are a couple of variations on the swing-away press. There is the draw press, where the bottom platen pulls outward and pushes back in, and there is the inline press, where the top platen moves side to side over two different bottom platens.

TILE CHOICES ARE ABUNDANT

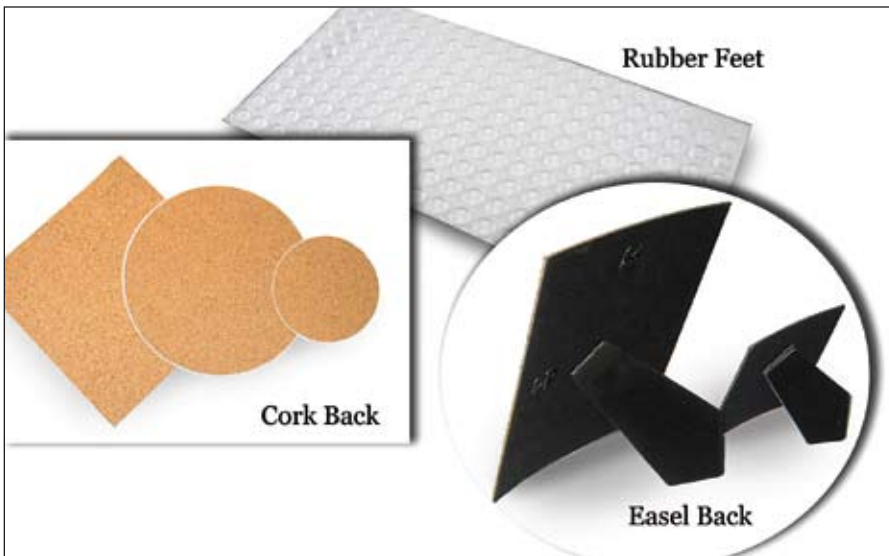
Tiles come in many shapes and sizes, from one inch to twelve inches, and



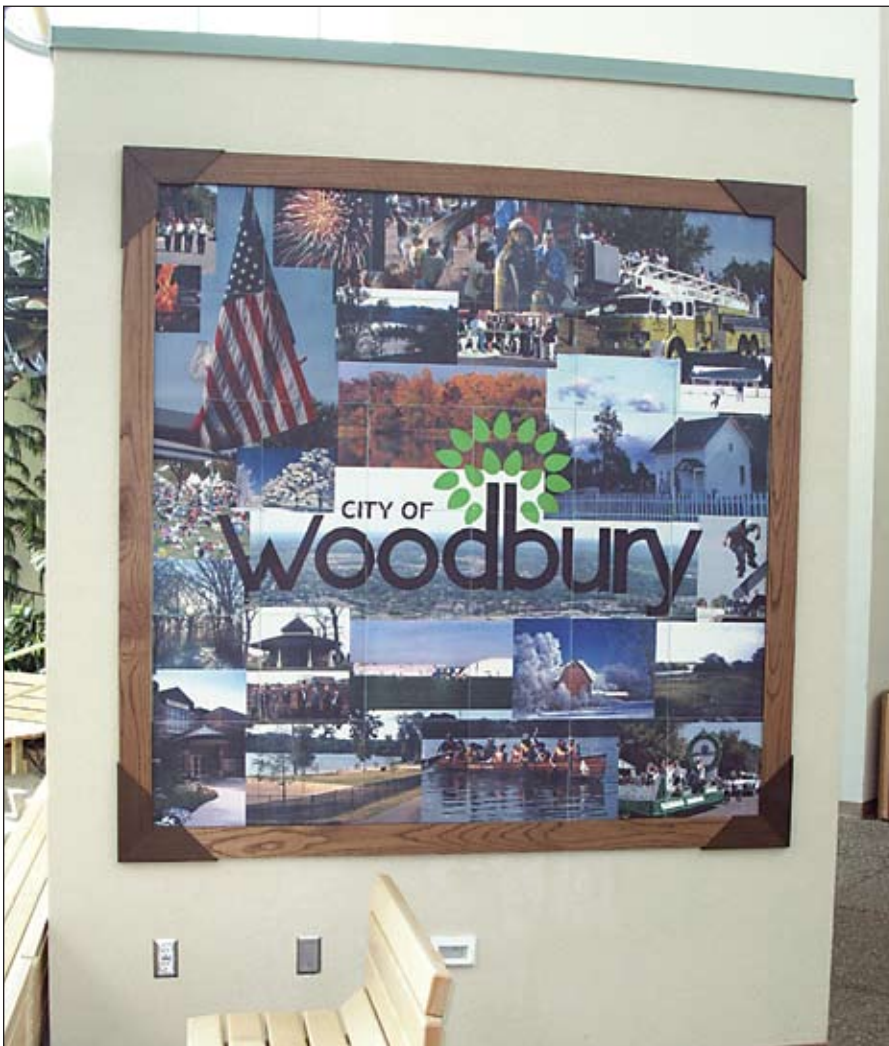
This beautiful tile art was created by 5 Star Awards, Cary, North Carolina.

PHOTO BY BOGART & BOGART PHOTOGRAPHY.

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These tile accessories will help in the creation of different tile projects.



Donated murals, such as this 6' tile mural, can give your company a great deal of valuable exposure and publicity.

in square, rectangle, circular, and oval shapes. They come in glass, ceramic, porcelain, marble, stone and even hardboard. Ceramic tiles come in gloss, matte, and satin, and glass comes in frosted, white back, smooth surface, or textured, tempered or not. You should talk to your distributor about the specific applications for each tile.

Further, you must be aware of the actual size of tiles. For instance, a twelve-inch ceramic tile is not really twelve inches square. It is eleven and three quarter inches. If you have a specific use in mind that is size specific, contact your distributor for actual sizes, or better yet, order a sample tile.

SUBLIMATING TILES IS EASIER THAN YOU THINK

We have heard many times from sublimators that they don't do tiles because they think it is too difficult, but when you look at it, it is not any harder to press tiles than other substrates. You do, however, need to have the proper accessories to make it easier, and to improve the quality of your sublimated tiles.

There are several ways to press tiles, and the way you choose will determine which accessories you will need. The way we prefer is face down with a Nomex Felt Pad. The Nomex felt is a heat-resistant felt that will not burn, and it is one-half-inch thick. When you press the tile, place the Nomex Felt Pad on the bottom of your press.

Next, place one or two pieces of "blowout" paper on top of the Nomex. Blowout paper catches any excess sublimation dye that migrates through the transfer paper. Place your transfer face up, and your tile face down, centered on the transfer. Some people prefer to fold the transfer paper over the tile and tape it in place to the back of each tile, but it is possible, if you are careful, to press them without taping.

Place a couple of sheets of blowout paper on top of the tiles, and then press them with light to medium pressure. Heat at 400 degrees; the time is dependant on the size of the tile, and how many tiles you press at a time. A general rule of thumb is to start with your base time for one tile, and add one minute for each additional tile, due to the increased mass that needs to be brought up to temperature. When you press the tiles through the back of the



This table was finished with glass tiles from Premiere Finishing & Coating.

tile, you force the tile into the Nomex Felt, which wraps the transfer paper around the edge of the tile.

Some people prefer to press tiles face down without the Nomex Felt pad, but after repeated pressings, the rubber pad can have a permanent indentation, causing problems when you press other items.

Geo Knight has a great accessory for the Geo Knight DK20S swing-away press. The Twin Shuttle Attachment is a dual-station bottom platen add-on. The Twin Shuttle moves side to side and allows you to set up a second pressing area while the first side is sublimating. This is a great way to increase your productivity with a single press.

If you are working with tiles, you will also want a graphics program that can break the mural up into individual tiles. This can be done very easily in CorelDraw, Adobe Photoshop or Illustrator. Contact your distributor, as they should be able to give you instructions on how to do this. If you are interested in doing very large murals, you may need a piece of software that enlarges your image with minimal loss of quality. One such program is Genuine Fractals.

YOUR CUSTOMER WILL WANT IDEAS

The products that can be done with tiles are as diverse as sublimation itself, and that is another factor that makes them so much fun. But it is a double-edged sword that can make you either successful or unsuccessful with tiles. You must think "outside the box" when you are trying to sell tiles as part of your sublimation business. Tiles are everywhere, and it seems that they are becoming more and more prevalent. Look around as you go through your day; I am sure you will see many ideas that you were never aware of.

There are basic accessories for displaying single tiles. You have frames, easels, cork-backs, rubber feet and stick-on hangers. A tile mural is an image that is broken up into many tiles, and when you mount them together, a complete image is formed. There are frames available to mount tiles in a mural form. This allows the owner of the mural to take it with them if they move, but the weight of the tiles will limit the size of this format. The weight issue can be overcome somewhat by using the Unisub hardboard tiles, which are much lighter than ceramic tiles.

The "big ticket" item in the tile world is wall-mounted tile murals. These murals can literally fill an entire wall, and can be absolutely stunning. Generally, tile

murals sell for \$80 to \$100 a square foot, unmounted.

When working with ceramic or glass tiles, you can either grout the tiles, or mount them flush against each other. In our opinion, using grout gives the tiles a more-authentic look, and protects against moisture getting between the walls and the tiles. When grouting, you must be sure to use a non-abrasive grout, so that you do not scratch the tiles during the grouting process. Contact your distributor for specific mounting instructions.

One very popular product that is available at your local home improvement store is furniture that is made to have loose tiles laid into the grid-like top. It is important to verify the actual size of your sublimation tiles, and glass tiles work well because the glass protects the image from scratching. These furniture pieces are inexpensive, and work wonderfully to lay out a tile mural in a format that can be moved as needed, but also has a very high perceived value.

MARKETING TILES

Now that you know what you can make with tiles, you must make your potential customers aware. Nothing sells tiles better than the tiles themselves. They are absolutely stunning, but they must be seen to be truly appreciated. Again, think creatively in your marketing plans.

When Kevin had his retail shop, he approached the local parks and recreation department, and volunteered to donate a six-foot tile mural, which was mounted on a prominent wall in an indoor park. The donation cost approximately \$500 in materials, but saw an estimated return on investment of \$20,000 in media exposure. The city had an unveiling involving the mayor, city council, and chamber of commerce.

A local magazine wrote a two-page article about the mural and his shop, accompanied with photos. Three newspapers ran stories on the mural, including one front-page story. Besides the publicity, Kevin gained valuable experience in creating and mounting the tile mural.

THINGS TO BE AWARE OF WHEN DOING TILES

While tiles are very durable, they are not indestructible. Gloss tiles are the most susceptible to scratches. If tiles will be located where they could be easily

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scratched, or frequent cleaning is possible, you will want to go with either a satin or matte finish, or glass tiles. Glass tiles have the image on the back surface of the tile, so they have a built-in protective layer.

Some people have tested sublimated tiles in an outdoor use, using UV protectant overcoat. We feel that sublimated tiles are not for outdoor use, where they will be exposed to direct sunlight, and that the possible liability far outweighs the outdoor durability at this time. The last thing you want is to have a customer come back to you after a time period and want a mural replaced, due to fading from the sun. It is best to stick with indoor murals.

WHAT ARE YOU WAITING FOR?

You don't have to be afraid of sublimating tiles anymore! You just need the right equipment, and you can start having fun marketing tiles to your customers. Get out there and show them the beautiful products that you can magically sublimate, and truly create lasting pieces of art.

COMMENT FROM A READER

This comment was sent to us from a person that has a wonderful energy and embodies everything that this article is about:

"I would have to say the advances in the last few years, between the inks and the equipment and the ease of use, have been HUGE. I had gotten to the point with sublimation that I would just cringe if I was going to have to do a large project—scratch that! ANY project. But not any more! I am so excited about the new equipment (we upgraded to an Epson 4800) and converting to Sublijet! I never thought it would be possible to achieve this quality on a repetitive, consistent basis, and this is critical to the quality product we are offering our customers. It is very exciting to be on this cutting edge and see it just getting better and better!"—Lisa from 5 Star Awards in North Carolina."

Please send us your questions or comments.

OUR NEXT QUICK STOP

We will examine the different avenues on how to bring an image into a digital environment. In doing so, we will discuss some recommended specifications for scanners and digital cameras. Educating customers as to what constitutes "print-ready" artwork can be a challenge. There are, however, some hints you can pass on to them that will make things easier. Finally, we will explore some different places for acquiring stock artwork and photos.

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Comments? Respond to aefeedback@nbm.com.

A&E

Our 20th anniversary issue promises to be one of the best ever... coming soon in March 2008!



SUBLIMATION QUICK STOP
with Matt Woodhouse & Kevin Lumberg



Image Acquisition: FROM INPUT DEVICES TO ARTWORK

One of the best things sublimation can do is reproduce beautiful photographs. How we get these photos into our computer, though, can make a huge difference. We will discuss the various aspects of scanners and digital cameras and what to look for when buying one. (See figure 1)

Good photos don't necessarily need to come from a scanner or camera you own. Many websites are available that can give us great images or backgrounds. We will list a few, and determine what they can do for us. Plus, we will discuss what design specifications to share with your customers who might want to bring you designs to be sublimated.

DIGITAL CAMERAS

One of the most fun technical developments over the last several years has been the digital camera. They allow us to just shoot and shoot without worrying about using up costly film or incurring processing fees. Getting the shot you *really* want is much easier now. But, different cameras are not all the same in regards to performance. While a full article could be written just on cameras themselves, here we will look at some basics for those looking to buy or upgrade their camera.

Megapixels: One of the more perplexing terms for people new to digital cameras, a megapixel is simply one million pixels. This term is used not only for the number of pixels in an image, but also to express the number of image sensor elements (what is actually seeing the image). For example, a camera that has an array of 2048×1536 sensor elements is commonly said to have "3.1 megapixels" ($2048 \times 1536 = 3,145,728$).

What does any of this mean to you? A camera with a higher megapixel rate will allow you to produce a larger image/item. As the price of cameras with higher megapixel rates has dropped significantly recently, we would recommend no less than a camera with 6.0 megapixels.

Lenses: Just like eye glasses, camera



Figure 1

lenses come in either glass or plastic varieties. Plastic lenses are far less expensive to produce. As such, you would expect to find them in fairly inexpensive cameras. While the camera might be taking good pictures out of the box, over time the lens is likely to become scratched or warped. The warped or scratched lenses make distorted or noisy images. Glass lenses are available with higher-end cameras, and are commonly found on cameras that are produced by the big name companies from the film era (Canon, Nikon, Etc.).

SLR: For people looking for an experience like using a good film camera, digital SLR's (see Figure 3) are the way to go. SLR simply stands for Single Lens Reflex. With this type of camera, the light from the lens is directed by a hinged mirror into a viewfinder so the user sees precisely the same image as will be captured by the image sensor. When the shutter button is pressed,

the mirror flips up out of the way. Most SLR cameras can be used with a range of interchangeable lenses.

These cameras are going to have very high-end color-reproduction capabilities and high megapixel rates, plus they'll feature higher shutter speeds than basic digital cameras. The ability to shoot several frames per second is very important to getting an extremely crisp image, especially when the subject is in motion. If sports photography is in your future, this is the way to go. With the performance increase, the price increases as well. Many good camera body and lens combinations can be found for around \$1,000.

SCANNERS

When looking for a scanner that is appropriate for use with sublimation, there are just a couple of key things to look for.

Optical Resolution: The "optical" num-

bers are usually something listed in the specification sheet in the owner's manual. The optical numbers are a true representation of the resolution of the scanner. The "digital" resolution numbers on the box should just be ignored.

All the digital numbers tell you is that the software for the scanner can try to stretch pixels to make an image larger. Stretching pixels will make for a lower-resolution image. As such, the digital numbers are good for marketing a scanner, but are not to be relied upon for sublimation. The higher the optical resolution numbers are, the larger you will be able to stretch the image while maintaining print quality output.

D-Max: Most scanner companies list a value, often overlooked in the specifications, called "D-Max" or "Dynamic Range". This number is a reflection of the scanner's ability to pick up subtle details in color and shading. This becomes the most critical component, as it affects every image that is scanned. The "D-Max" numbers are a bit similar to the Richter scale, in that the number (from 1-4) jumps exponentially.

As such, every tenth of a point increase is 10 times greater than the one before. The very good news here is that scanners with a high D-Max value have come down in price considerably in the last couple of years. Scanners with a 3.4 D-Max can be found for as little as \$250. I have even seen several 4.0 (the top of the scale) models available for around \$500.

FINDING STOCK ARTWORK

There are several avenues to acquiring stock photos for use as backgrounds, or clip art graphics.

Online: There are several good websites in which to find stock photos. Some images are free, but most do cost some money. Most of the pay sites offer to either let you download images ala carte, or you can subscribe to the site for discounts on downloads. If you are going to need to download images on a regular basis, a subscription would be wise. Here are a few websites that we recommend: liquidlibrary.com, istockphoto.com, clipart.com, zazzle.com, and unisubgraphics.com.

Stores: Office supply stores like Staples or Office Depot and others often have a bin with very inexpensive software. Among them are often various CDs filled with nature pictures and cityscapes that can make very attractive background images. Also, several companies are in the busi-

Figure 2

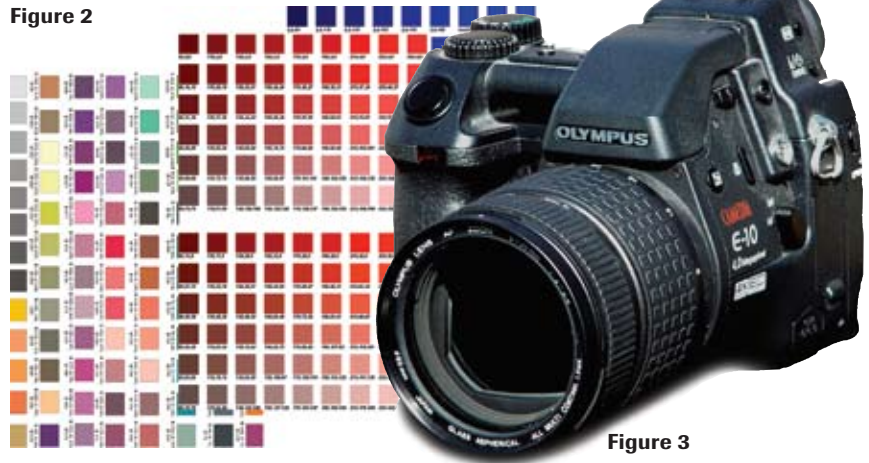


Figure 3

ness of publishing clipart libraries. They can usually be found advertising in trade magazines or exhibiting at various trade shows for this industry.

Please do be cautious with artwork; some artwork requires a license agreement to legally reproduce it.

CUSTOMER SUPPLIED ARTWORK

One of the biggest art-related challenges is working with customers who want to do a lot of the designing themselves. As we are doing some fairly special things here in vaporizing dye molecules, there are some basics that need to be followed. Educating customers as to the basis of what is necessary in the design can help save time and frustration.

First, if your customer is using a professional design program, you will need to explain that the color scheme for the design is RGB and not CMYK. While CMYK colors work well with Macs, they don't work well with Windows. Dramatic color shifting is likely to occur with CMYK colors, so have your customer avoid this color scheme if at all possible.

Second, when we choose colors, we are not looking at our computer screen. We rely on color charts (see Figure 2) that have been printed and pressed into the substrate we are going to use. This takes all of the guesswork out of color management, and is a tool your customer is likely not to have. As such, if your customer is looking for a specific color, have them send you a hard copy of what they want you to reproduce. Now you will have a physical sample to compare and find the correct color on your color chart.


Third, we cannot successfully reproduce somebody's logo with the image that is on their website. The images that are on most

websites are usually small, and of low resolution. Print-quality artwork is 300 dpi. In sublimation, we can sometimes get away with a bit less, but the website images are likely only 72 dpi, and thus will not look good when printed.

Recreating the logo is often the best way to get the best output—having control of the entire process, including choosing the colors you know work. While having the need to recreate a logo might sound disappointing to some, there is another way to frame this. If a company has paid to have their logo recreated, are they more likely to keep coming back to buy other products to avoid having to pay art charges again? Repeat business, we believe, is always a good thing.

IN OUR NEXT QUICK STOP

We will look at the ins and outs of apparel production. From increasing production speed to avoiding mistakes, we will give you a comprehensive look at what apparel can do for you.

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