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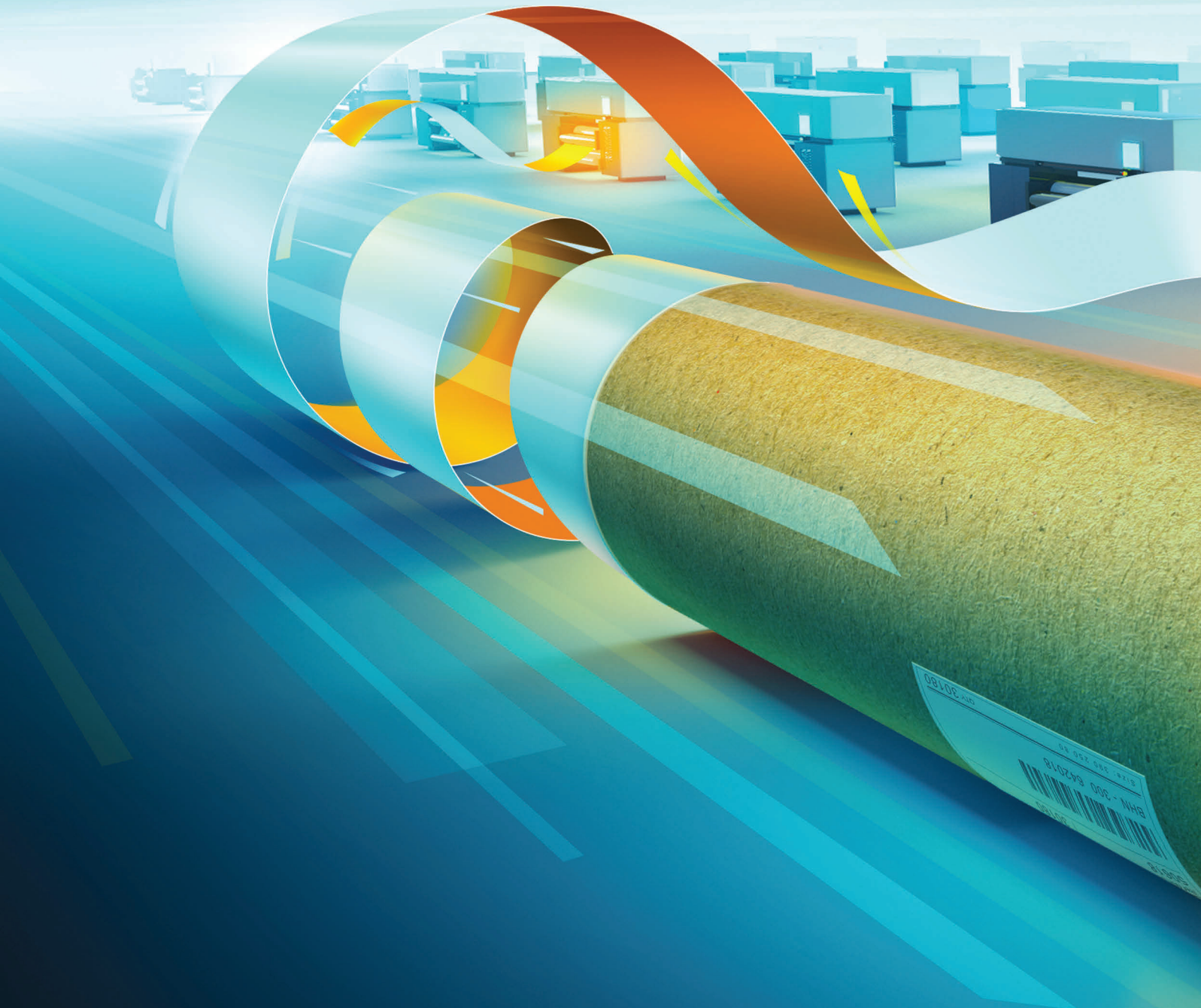
**BONUS SECTION:
THE TEAM SALES REPORT**

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VOLUME 35

FEBRUARY 2021

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“Being able to shift gears and completely change your production model in the face of sudden, drastic disruptions to your market—well, that could be the difference between thriving and vanishing.”

ROBERT ZOCH
KORNIT DIGITAL

from the *Team Sales Report*, page 34

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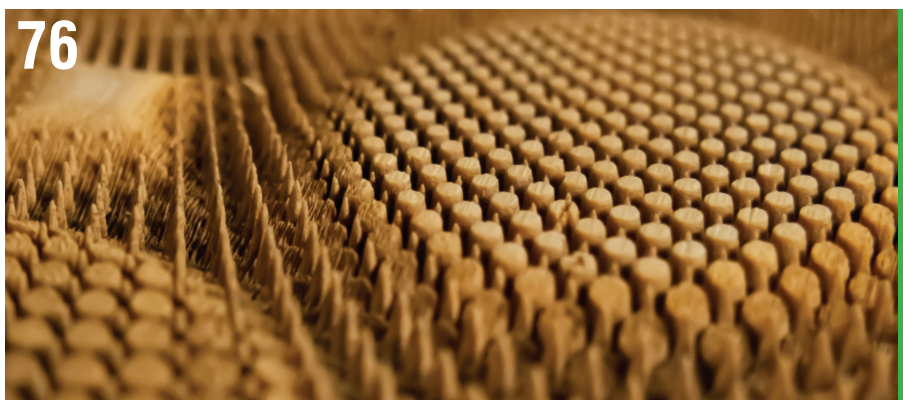
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APPAREL DECORATING



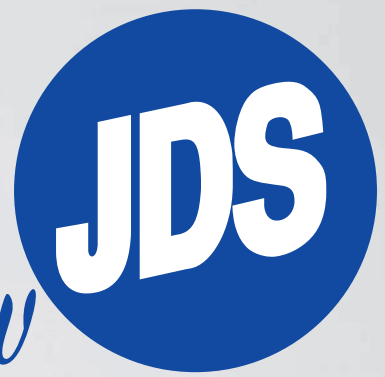
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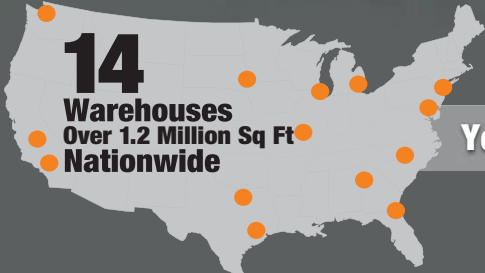
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THE TEAM SALES REPORT

Complete coverage on the changing team sales market, including on-demand printing, meeting non-traditional awards needs, and 2020 survey results. **Page 33**

ON OUR COVER

With an emphasis on "How to," the February issue contains embroidery tutorials, signage installation projects, laser engraving purchase tips for beginners, and more. The cover art was provided courtesy of **Print Craze** in Illinois.

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STEP ONE CASSIE GREEN, EXECUTIVE EDITOR



FOLLOWING DIRECTIONS

My son has this obsession with LEGOs. There's this particular series that he's drawn to that features ninjas, dragons, robots, and such, but the thing that stands out to me is the intricacy of the sets. He got one set that featured 371 pieces just for the dragon, and since he's only 5, it required some supervision.

One of the many things that LEGO does well is the directions. Easy for kids to follow, they are large, simple pictorials demonstrating piece by piece how to build something (at least at this age). Because of that, with a certain amount of encouragement, he's often able to build his own sets. He's realized he must follow the directions if he's going to learn how to build something magnificent with the pieces.

How about you? You might be beyond LEGOs at this point in your life, but when you're learning how to do something, what resources do you tap? If you've just bought a laser, chances are the manufacturer offers training. If you've recently purchased a wide-format printer, perhaps you also browse YouTube or attend a virtual trade show for some video knowledge. Whatever the case, you must learn how the equipment works before you start creating and selling product.

This month's issue is full of tutorials, directions, and general how-to information to assist you in your endeavors. If you treated yourself to a new sublimation setup in the last few months, you'll learn how to embellish slate. If you want to create patches using your embroidery machine, there's guidance for that.

We're here to help. Good luck with your learning endeavors this month and always.

Until next time.

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- HOW TO CREATE** a multimedia design using screen printing and embroidery.
- PREPARATION TIPS** for the arrival of a new CNC router.
- SPECIAL SECTION:** The *Team Sales Report* dives into the changing team sports market.

Image courtesy Kornit Digital

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COLD WEATHER AND GOOD DEEDS

It's wintertime here in Texas, and though cold weather is not what we're famous for, at least in the northern part of the state it does happen.

A few years ago, on a particularly cold and dreary night, when freezing rain or sleet combined with wind and cold, my wife determined I should do something about that poor horse my neighbor had next door. She had fretted over him before, realizing he had no shelter, and that night made me go over and offer to let him into our fence, because down below the house was an old barn that he could cozy up in on that miserable night.

I did as I was told, and the neighbor agreed to that plan, so I let the old boy

onto our property and saw him off to the barn. After that, I dashed back to the house and gave him little thought before morning.

But the next day, the old stallion was not to be found, at least around our place. Seems at some point in the night, he realized there were three or four mares in the small pasture just over our back fence, and the old stud decided, cold or no cold, he'd be cozier frolicking with the girls.

When we retrieved the horse, he was a bit beat up for at least one of the mares didn't appreciate his advances and kicked him around pretty good. But he seemed otherwise happy. However, neither one of my neighbors was very happy, proving

once more the age-old adage, "No good deed goes unpunished."

So, we may well have changed the genetic pool of the horse population around these parts as a side effect of one neighborly gesture gone astray. I just wish that was the only time that some well-intended and generous act on my part had completely unexpected and undesired consequences. At our commercial sign shop, I may well have a reputation.

One of the worst was back when a client and friend of mine talked me into using my old ladder crane to lift a heavy-duty air conditioning compressor up to the roof of the Longview Mall. I really didn't want to do it, but he was pinching pennies



and insisted it wasn't as heavy as all that.

When the cable to my crane broke, the machine, which looked like a small V-8 engine, landed with a "ka-wham!" in the back of the flatbed truck it came on, doing minor damage to the truck, but major damage to the compressor. I made payments on that expense for a couple of years, but at least it hadn't fallen through the roof of the mall!

Another good, and unfortunate, example of being helpful to the point of bending the rules for deadline's sake was the time I dug up, but thankfully not through, a gas pipeline in an area the customer swore was cleared of any underground utilities a short time before. I have never since taken anyone's word for something that critical, but could well have not survived that one event.

Lesser kindnesses can backfire as well, like when an ex-employee had gotten in a habit of just giving away all extra or over-run screen printed signs or decals. I found out from one of my customers that she, the customer, had started ordering less than she actually needed, since it was a given that this ex-employee would be giving her additional ones for free. After that little true confession, I had an overdue heart-to-heart conversation with the person.

But by far the most common, and this happened... again... just last week, is our going to extreme efforts to meet a client's critical deadline, only to have the completed work gather dust in the corner of the shop for days or even weeks. I wish I had \$100 for every time that has been the case!

In fact, we have learned that even when a certain job or project falls smoothly into our production schedule and gets done the same day there about, we should refrain from calling the customer immediately to give them the good news, as once

you become known for "one-day service," it will be expected on a repeat basis even when it isn't humanly possible. Ask me how I know that.

But, all of the above does not mean we won't keep doing our share of good deeds, at least when we think it's safe to do so. However, experience has taught us that all actions, the good and the bad, have consequences and we're not smart enough to see them all in advance. Fortunately, we are a lot more experienced than we used to be and try not to be gluttons for punishment.

I hope you're staying busy and warm this winter, and all your company's kindnesses have a desirable and positive result. Have a great month.

Rick

RICK WILLIAMS owns Rick's Sign Company, a commercial sign shop in Longview, Texas. He has been in the sign industry since 1973 and has been a contributing editor to Sign Business and Sign & Digital Graphics since 1986. Contact Rick via email at ricksignco@aol.com.

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Growing a Professional Network



BY DONNA
M. GRAY, CRM

Industry icon and business pro Stephen Capper teaches that “people buy from people.” We all tend to do business with people we know, like, and trust. Companies don’t make purchasing decisions, people do. Having a professional network helps open doors that otherwise could not be opened.

While networking to meet new prospective customers, and to find and establish vendor relations, is important; what’s more important is cultivating and embracing those relationships. Networking where you distribute business cards is one and done. Relationship building creates a lasting partnership.

You need to be trusted before people will commit to you, your company, and your products. The old saying, “It’s who you know,” comes into play more often than one thinks. And while your personal connections will promote you, this is just the beginning of credibility for your name, brand, products, and service. Like all industries, ours is now competing with unknown online vendors, so building strong relationships with our customers is necessary to keep them from letting their fingers do the walking to find other sources.

NETWORKING FUN

Besides taking time to rest up, the spring/summer season is a great opportunity to work on ways to prospect, cultivate, and develop new and/or better relationships with our clients.



Here in wonderful Wisconsin, many of our customers head up north, even if just for long weekends. Like many of us, they enjoy summer vacations. Since many great professional connections are developed through shared experiences, coming together with clients in summer (or year-round if you are weather lucky) with activities, like socially distanced golf outings helps to bring a professional closeness. This can help keep a business at the top of customers' minds all year round. The added benefit from building the business relationship in this way is that we all have fun.

A study conducted in 2014 by the Harvard Business Review showed that those who avoided networking had fewer billable hours and fewer clients assigned to

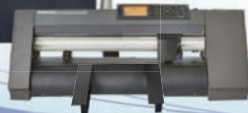
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them. It pays to be seen, and it pays to take networking a step further and get to know your candidates for long term relationships.

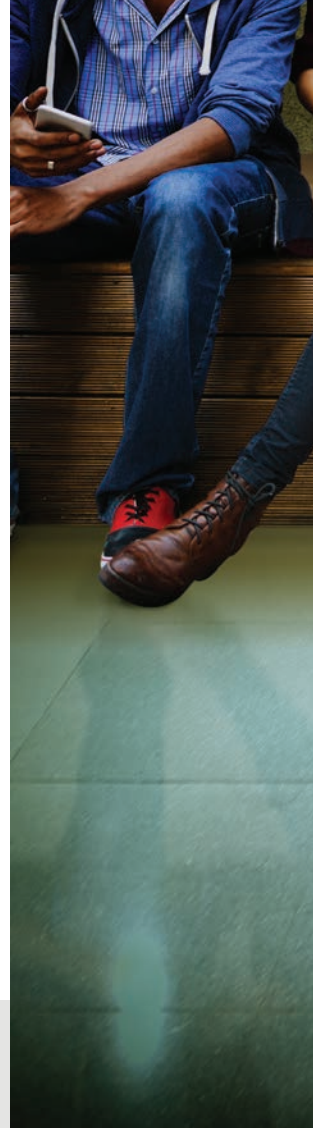
For many years, at every one of our local networking events, I would see “Johnny Cash.” John was a talented and successful money manager who handed out play money with his picture and business information on the bills to his prospects. He worked at being a good friend to his entire professional network. His visibility and the power of his network allowed him access to many great business opportunities.

But John didn’t stop at handing out cards and shaking hands. His goal was to build solid relationships that went far beyond generic introductions. Word of mouth from John’s customers confirmed that his attention to their needs went above and

beyond servicing their fund management. He developed real friendships with his clients that went much further than sending cards at birthdays and holidays.

John got involved with their favorite charities. One could find him working a registration desk for their fundraisers or on the cleanup committee after a special event. His personal involvement took his business relationships beyond getting a signature on the dotted line.

Relationship building goes beyond the business card exchange, especially in the current COVID-19 pandemic situation. It’s cultivating connections that can help with who, where, and what information; introductions; or things you need when you ask. It’s creating links that are abundant, diverse, and wide reaching.





CONNECTION

There is a difference between making connections at business networking events and making friends at social events. The difference becomes greater when one identifies, romances, and cultivates new contacts. As these events start to make a comeback, you should be prepared to cultivate.

Shared interests are the start of relationship building. Activities like virtual events that are centered on organizations and causes that one is passionate about, and that one strongly believes in, are great opportunities to meet and begin building friendships that can lead to strong networking connections.

In his book, “Never Eat Alone,” Keith Ferrazzi says, “When we are truly passionate about something, it’s contagious. Our passion draws other people to who we are and what we care about. Others respond by letting their guard down, which is why sharing your passion is important in business.”

Building professional business relationships within the industry comes from opportunities to reach out, and to share information, ideas, processes, solutions to problems with equipment, etc. Cultivating industry friends that we meet through virtual trade shows and conferences (and physical ones again someday) can mean the difference between getting new information

on how to make something work and blowing a lot of time trying to figure out the answer for oneself.

CULTIVATE CONNECTIONS

Building successful relationships no longer depends on having a large Rolodex filled with contact names and business cards. Now, besides attending events, we cultivate connections through social media and other opportunities. However, the rules don’t change. To grow and maintain solid relationships, we still have to:

- Follow up with phone calls and emails among other special touches. Because our fast-paced, digital world is constantly bombarding us with names and contacts that require our attention, the thought of how to follow up with someone new can be overwhelming. The follow-up most people remember is the one that they receive first, which suggests that a quick, short, sincere email sent after a meeting can make the best impression.
- Take extra steps. Business experts tell us that when we meet someone new that we want to add to our professional network, we must take the extra steps to make sure we don’t get lost in their mental attic.

continued on page 94

Methods for Making

HOW TO CREATE EMBROIDERED-EDGE PATCHES

BY ERICH CAMPBELL



Though many decorators elect to leave larger scale patch and emblem production to companies that specialize in the field, more and more are looking to bring small run sampling and patch production in-house. Though you can invest in specialty equipment to create the traditional overlock-stitched edge that we've seen in classic patches, you can start creating small-run patches with little more than your embroidery machine and the addition of some specialty support materials, scaling up to equipment that increases throughput or automates processes as you produce more patches.

In this article, I cover some simple methods for making patches and a couple of the simplest methods with a brief, step-by-step guide on page 18.

EMBROIDERED-EDGE PATCHES

We'll refer to any patches we edge without the use of the traditional Merrow overstock machine as embroidered-edge patches. These can be either made with a base fabric or use thread and a special non-fabric substrate to create the body of the patch, but all are edged in-hoop. These patches require relatively little manual labor depending on the method used to create them, and can be made in virtually any shape, bucking the limitations of sharp points, thin structures, or through-holes that traditional overlock patches can't address.

Their weaknesses are that embroidery's "interlock" stitch leaves

visible bobbin thread rather than the full color "wrap" of the traditional overlock edge, and they require either precise cutting or the use of specialty stabilizers to achieve their custom shapes.

EMBROIDERED-EDGE PATCH MAKING METHODS

Heat Cutting: With small-run heat-cut patches, the patch and edging run are stitched directly through a hooped span of polyester patch material. Once the design is completed, the full material sheet is unhooped, placed on a sheet of glass, and manually cut with a tool reminiscent of a woodburning pen, often referred to as a hot knife. This melts the polyester at the edge of the patch, as the person cutting carefully runs the point along the outer embroidered border.

After it is cut, the patch is often rubbed against the hot barrel of the knife tool to smooth the edge and hide any stabilizer or material still extending beyond the edge of the patch. This method doesn't require special stabilizers, and the digitizing is less specialized than other methods. It does require a fairly time-consuming and potentially error-prone manual process.

Soluble Stabilizer: The soluble stabilizer method creates a clean edge with no excess material and is somewhat less difficult to achieve. In this method, we hoop a layer of water or heat-soluble stabilizer, run a placement line for the patch material to allow precise placement either of pre-cut pieces or a span for the hand-cut appliqué version of the method. After this material is tacked down,

Extremely detailed custom shapes like the one seen here are difficult or even impossible to edge with a standard Merrow machine; for these shapes, an embroidered edge, whether commercially executed or done in-shop, is the best option. (Image courtesy Erich Campbell)

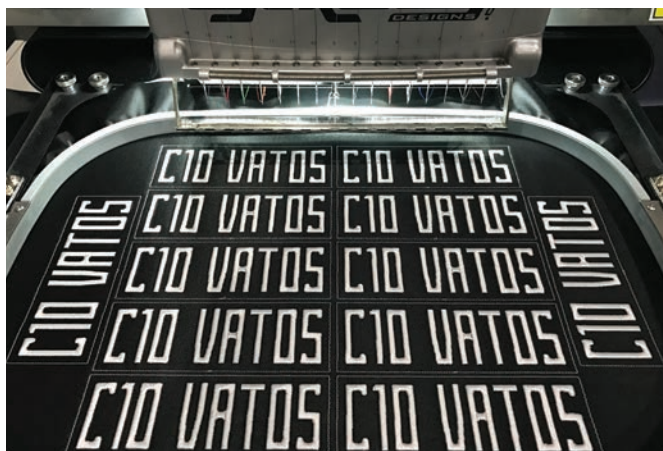
Both of these patches made for Vietnam veterans were created from embroidery files I created but stitched by large emblem companies. In both cases, the patches were cut after stitching. In the Run for the Wall patch, the textured background took some explaining and testing to get the company on the same page as we were for execution. Though that slowed the order somewhat, for the large number of patches we needed to produce, outsourcing made more sense. (Photo Courtesy Celeste Schwartz)



the design material and edge are embroidered, leaving a miniscule margin between the patch material and the finished edge.

After embroidery, the stabilizer is dissolved, leaving a clean-edged patch that approximates the wrap of overlocking. This method requires additional work in digitizing to account for the placement and tacking of cut materials, special stabilizers, and exposure to either water or heat to dissolve said stabilizer, making for a less manual, but still somewhat involved process.

For the pre-cut version of this method, nonedged blank material bases can be created with traditional plotter-cutters and pressure-sensitive sheet or roll mounted twill, or pre-cut with a laser for later placement. For the appliqué method, the central design area can be



These patches were created using the appliqué-style method, stitched without edging and manually cut from a span. (Image Courtesy RJ Silva, Eyekandy Designs)

stitched on a span of material without a finished edge, often with several badges in a single span of material, cut from the span either manually or with a laser and stitched on the soluble material just for the edging process in a second embroidery run.

Plastic Substrate: The plastic substrate method requires either a commercially developed plastic frame system or hooped 20-gauge clear vinyl. In either case, a hooped plastic substrate is used, on which stitchers either place a pre-cut fabric base as in the previous method or render the “base” of the patch’s coverage entirely in thread. Thread-only patches require digitizers to create a particular type of underlay and fill that provides sufficient body to make up the base of the emblem. After emblems are stitched on plastic substrates, they simply rip away from the span, often requiring little finishing.

Due to the substrate being clear, even the small amount of material that can show is usually unobtrusive. That said, this method has the most tendency for the emblem to separate or tear away from the hooped substrate before the design is complete, resulting in complete failure of the emblem.

MINDING YOUR MATERIALS

Soluble Stabilizer: For this method I prefer a fibrous-type water-soluble stabilizer as it is more able to stand up to the stresses of stitching than film-type soluble stabilizers and some plastics.

Fabric: Though you can use almost any sufficiently stable fabric for patch-making, the classic choice is a polyester twill. Many early patch-makers think that the stiffness of commercially produced emblems requires thick, hard fabrics, thus they use heavy, coarsely woven fabrics. This results in distorted fine detail and poor satin stitch edge quality due to needle deflection and texture.

text continued on page 19

7 STEPS TO CREATE PATCHES ON SOLUBLE/REMOVABLE STABILIZER

1. Hoop the proper stabilizer or other support material.
2. Stitch your placement line.
3. Place the patch material in the hoop, carefully aligning any pre-cut piece with the placement stitching to cover that initial outline. You will likely want to adhere the patch material to the support material in some way. I have used pressure sensitive pre-adhesive coated twill, but other materials require a light spray of embroidery-specific adhesive to secure them.
4. Stitch your tackdown zigzag or your cut line. If you are using pre-cut material, this is your last chance to correct improper placement; if your zigzag isn't fully catching the edge of the material or your patch has somehow shifted during the run, it's relatively simple to remove the loose zigzag stitching and move the material into the proper alignment and re-run the tackdown before continuing. If hand-cutting your material, carefully remove the hoop and cut the material away from the cut line after this step, getting as close to the stitched line as possible to avoid threads falling out of the final covered edge.
5. Run your central design. Again, the main decorative body of the design should run before the outline, as the satin outline has the most chance of compromising the stabilizer through closely aligned, dense perforations. With the stresses of the central design causing the patch to shift as it degrades, compromised stabilizer may deform the border of the patch or prematurely tear out and entirely ruin the emblem, particularly with plastic films.
6. Stitch the final, full-density satin-stitch border.
7. Remove the patch from the hoop and remove the excess stabilizer by washing/rinsing it in the case of water-soluble stabilizer or tearing it away in the case of plastic films.



Hoop up a double layer of a fibrous, water-soluble stabilizer. (Images courtesy Erich Campbell)



Run your placement lines.



Using an adhesive, place the cut pieces on the stabilizer.



Run the tackdown stitching.



Run your design and border.



Rinse out the soluble stabilizer.

The finished patch.





Above: This commercially stitched patch was made from an embroidery file I provided the patch company. This piece uses an embroidered edge and was cut post-edging.

The stiffness of a classic commercial patch is usually the result of support materials like crinoline or the addition of an adhesive layer. Commercial patches are usually made of finely woven polyester material that resists fraying somewhat, takes fine detail, and can be cut with a hot knife/laser.

Thread: Some patch producers use 60-weight thread for fine detail and tiny text on emblems; with fine, stable woven material as the base of the patch, it's easier to use thin threads and to carry the detail seen in seals and badges. Just remember that designs need to be digitized for 60-weight thread, as any satin or fill stitch will need approximately 25% more density to reach the coverage of 40-weight thread in the same circumstances. For hot-knife cutting, some advise using a rayon thread for edging as it doesn't melt at the same temperature as the polyester fabric.

Bobbin: When possible, use a bobbin thread that is as inconspicuous as possible for patches. The key is cutting down on contrast. Frequently, this means using an easily found pre-wound black bobbin, but you can also use a custom-wound colored 60-weight thread bobbin to enhance the wrapped look of a patch edge.

Left: Hot knife cutting sees the patch cut from a span of polyester thread using a hot knife tool as seen with this scrap sample piece. They would usually be stitched in multiples on a complete span, including borders, after which they would be carefully cut by dragging the tip of the hot knife's chisel point along the edge of the stitched border, melting the polyester fabric to both remove it from the span and seal the edge against any fraying. (Images courtesy Erich Campbell)

continued on page 94

Introducing the New Barudan KY Multihead Machine

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HOW TO SELL VIRTUALLY SUCCESSFULLY

VIDEO POINTERS TO CREATE EFFECTIVE SALES PRESENTATIONS

Life as we knew it is no longer—what we have now is our new reality. The good news is that this paradigm shift caused by the pandemic has leveled the playing field. Every business has the same opportunity to engage with the public online. The bad news is that if you do not embrace this new reality of virtual and online selling, you will be left behind.

In order to survive and even thrive in this new way of life and new way of doing business, learning how to connect with your customers and potential customers virtually is essential for every apparel decoration professional. Taking sales virtual is easier than you think, and once you make the shift, you won't need to rely solely on in-person meetings to succeed.

When presenting remotely via video

conference, the task of making a message stick may seem downright impossible. If you're delivering your sales presentations the same way everyone else is, there is no doubt that you will get lost in the crowd. First impressions count, and when time and attention spans are limited, how you say something and how something looks often matters just as much as what you actually say.



How do you make your online video presentation stand out? Try these best practices for delivering effective sales presentations through video, which will help you engage your customers and potential customers and ensure that your pitch won't be forgotten.

SET THE STAGE FOR VIDEO

If you've made in-person sales calls, then

you are comfortable "in the room." Now you have to take that experience and deliver it with video. It's possible when you follow a few key rules.

When it comes to a video sales meeting, treat it like an in-person sales meeting. Would you show up in a wrinkled T-shirt and baseball hat? Would you sit in a dark room? Would you want the customer to only see part of your face? Of course not.

Apply the same simple common sense to your videos.

Make sure your space is presentable. Look at your background. Is it distracting? Is it messy? Does it portray the image you and your company want to present?

Create a specific space to use as the background for your video meetings. Think of your video background as a new "storefront window" for your business. Dress this background with as much thought and care as you would if you were a retail storefront with a window on Main Street. Sure, you could use a virtual background and just plop your logo in one corner, but is that really telling much of your story? Is that going to help a potential customer see how working with you will meet their branding and apparel decoration needs?

LOOK AT YOUR LIGHTING

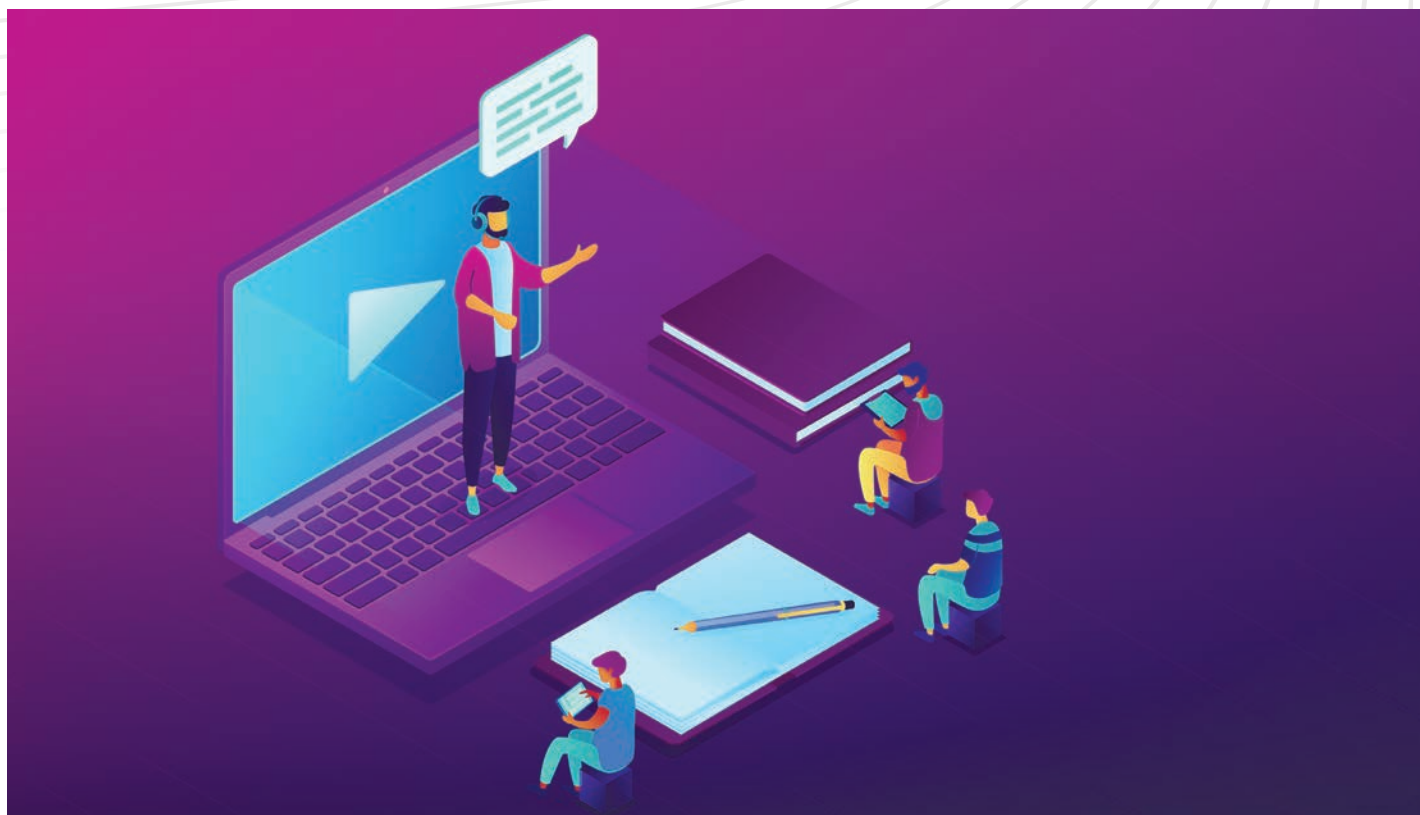
Are you sitting in front of a window, making you look like you're in the witness protection program with your face in shadow? Is the lighting turning you gray, and you look like you are getting a mug shot? You want light in front of you, not behind you. If you do not have adequate lighting, get a simple ring light for about \$35 that lights up your face and provides ample warm light for your virtual meetings.

Everyone on your team should be aware of the requirements for virtual sales calls, including dress code, lighting, backgrounds, and technology checks prior to signing on with prospects. Set things up in advance, run every sales rep through the steps, and make sure the experience is what you'd expect if you were on the other end of the call.

SOUND MATTERS

Good video is one thing, good sound is another. If people can't hear you, then you





can't be effective. Since everyone's system is a little different, asking one person if they can hear you might be fine, but there could be six other people who can't hear you well.

And just as your visual background matters, so do the sounds in your background. You need to make calls where and when kids, pets, video games, televisions, radios, machines, phones, or staff are not heard in the background.

One tip is to record yourself and then play it back. How does it sound to you? If you're a sales leader, get your entire team on a call and go around the team checking the audio with everyone. How does each person sound to *all* of you?

Audio is one of the easiest variables to fix. If your laptop or PC audio is bad, pick up a headset with a microphone. They are cheap and easy to set up, and you will always have great audio on your calls.

GOOD INTERNET CONNECTION

According to Zoom's website, these are the internet bandwidth requirements for different kinds of Zoom calls:

For 1:1 video calling:

- 600 kbps (up/down) for high-quality video
- 1.2 mbps (up/down) for 720p HD video
- Receiving 1080p HD video requires 1.8 mbps (up/down)
- Sending 1080p HD video requires 1.8 mbps (up/down)

For group video calling:

- 800 kbps/1.0 mbps (up/down) for high-quality video
- For gallery view and/or 720p HD video: 1.5 mbps/1.5 mbps (up/down)
- Receiving 1080p HD video requires 2.5 mbps (up/down)
- Sending 1080p HD video requires 3.0 mbps (up/down)

For screen-sharing only (no video thumbnail): 50-75 kbps

For screen-sharing with video thumbnail: 50-150 kbps

For audio VoIP: 60-80 kbps

Make sure that your sales reps, sales engineers, sales leadership, and anyone who might be on a call with a pros-

pect has these speeds at a minimum.

Want to be sure? Move some of that travel budget (which is currently useless at the time of writing) over to technology and provide internet speed upgrades for your entire sales team. Give them a stipend for internet and make sure they upgrade accordingly. Ask them to send you the configuration screen from their internet service provider as a condition for the stipend. As an added bonus, you will be a hero to all their families, as they will benefit from the faster speeds too.

When following these rules, you can be sure that there are no speed issues from your end. You'll never be certain that connection problems won't stem from the prospect's side, but this ensures that 50% of the issues are avoided.

STREAMLINE THE MEETING

Today's prospects are better informed than ever. A few moments on Google teaches them most of what they need to know about your company, product, market, and even you. That's important, as today's prospects are also busier than

AS YOU BUILD YOUR ONLINE PRESENCE, HERE ARE FIVE BOXES THAT YOU SHOULD CHECK TO MAKE SURE YOUR DIGITAL PLATFORM STANDS OUT: <http://gpro.link/5boxes>.

both you and your slides or you and a screen share is the next best thing to presenting live. Most video conferencing solutions allow you to show your screen and video of yourself at the same time. Be sure to share your webcam video and share the presentation on your screen.

This enables you to reinforce the messages you want to highlight and helps ensure prospects are engaged for the entire presentation. Studies have shown that including yourself in a digital presentation helps humanize the delivery, enabling you to make use of the 90% of human communication that is non-verbal. It helps your prospects too—eye contact makes your words more memorable, so they're more likely to retain the information you presented.

INTERACTIVE

If you want your sale to succeed, you don't want your audience leaning back in their chairs passively listening. This is true with in-person meetings and virtual meetings. You want them leaning in, asking questions, and interacting with you.

Countless sales best practices speak to the importance of tailoring the content of your presentation to a prospective customer's specific needs. When presenting to a new prospect, you may not yet know what those needs are. Planning an interactive presentation not only engages your prospect in the meeting but also enables you to adjust the content of your presentation to show them the solutions you can provide that will help them the most.

Ask questions in your virtual call that help you discover the reasons for the meeting, such as if they're a new business, whether they've changed their logo, their current apparel is tired looking, or they have new staff, etc. Once you have a better feel for their specific needs, you can personalize your time with them to their situation and hold their attention throughout the entire meeting.

DON'T SEND SALES SLIDES

There's a big problem with sending your sales slides after your presentation is over, or even before the meeting. They don't include the most important part of the presentation—you. Without someone to narrate them, even the best slide decks are flat and listless, not to mention prone to misunderstandings and misinterpretations.

Recording your live sales presentation as it happens and sharing that video with your prospect after the meeting gives them the ability to revisit everything you showed them and to share it with their colleagues. It's also a smart strategy for getting your presentation in front of busy decision-makers who may not have been able to attend the live meeting because of a scheduling conflict or other project.

Just press record at the start of your presentation in your video conferencing software. You can share the downloadable video file it produces with your prospect or share a link to it after the meeting, depending on the software you use.

CONNECT

In order to sell something, you first must connect with your potential customers. Connecting successfully virtually is absolutely possible. When you have a good background, good sound, good lighting, and craft a dynamic conversation specifically built around meeting the needs of your customers, you will stand out from the other people trying to sell decorated apparel to them. **GP**

JENNIFER COX is one of the founders and serves as president of the National Network of Embroidery Professionals (NNEP), an organization that supports embroidery and apparel decoration professionals with programs and services designed to increase profitability and production. You can contact her at jennifer@nnep.com.

ever and typically prefer to save time and skip right to the brass tacks.

So why spend the first 10-15 minutes going over the basics of who your company is and what you provide? Make your prospects happy by saving them time.

Steal a page from Amazon or LinkedIn and streamline your meeting. Before the meeting, record a short introduction and company overview video presentation covering all the basics. Include a few testimonials; show samples of jobs you have already completed. Send it to your prospect and ask them to view it before your call. You can even drop in a special offer at the end, a unique coupon code that they can use on their first order, which they will only know about if they watch the video.

Then spend your actual meeting time diving deeper into the solutions that are most interesting to your prospect, and you'll have more time to answer their questions.

YOU AND YOUR PRODUCTS

Your website or PowerPoint don't sell your solution, you do. When you can't meet in-person, meeting using Zoom and showing

Perceived Value

BY ED LEVY



HOW TO CREATE A MULTIMEDIA DESIGN USING SCREEN PRINTING AND EMBROIDERY

Nothing is more elegant than a beautiful piece of embroidery. Embroidery has a higher perceived value than just about any other embellishment technique.

Thread colors are more vibrant than ever and the textures and dimension that embroidery can bring to a design are spectacular. With such a strong statement about embroidery, it seems there should not be any other decorating techniques to consider. Is it possible that there is a time when there might be better options than embroidery? At times, two main things prevent the customer who is looking for embroidery from purchasing embroidery ... time and money.

Embroidery machines can only operate so fast. There is no turbo mode and regard-

less of a machine's advertised maximum speed, most people have a cruising speed of around 1,000 stitches per minute. Capacity = (stitch count divided by cruising speed) – (downtime) X (number of heads).

In terms of calculating productivity, embroiderers often fail to calculate downtime properly. Downtime refers to anytime that the embroidery machine is not running, regardless of the reason. This includes restroom breaks, lunch, bobbin changes, needle replacement, re-threading, time for change-over, and of course, thread breaks. With any form of apparel decoration, the only time a company is generating revenue is when their equipment is running, so downtime plays a major factor in a shop's ability to be profitable.

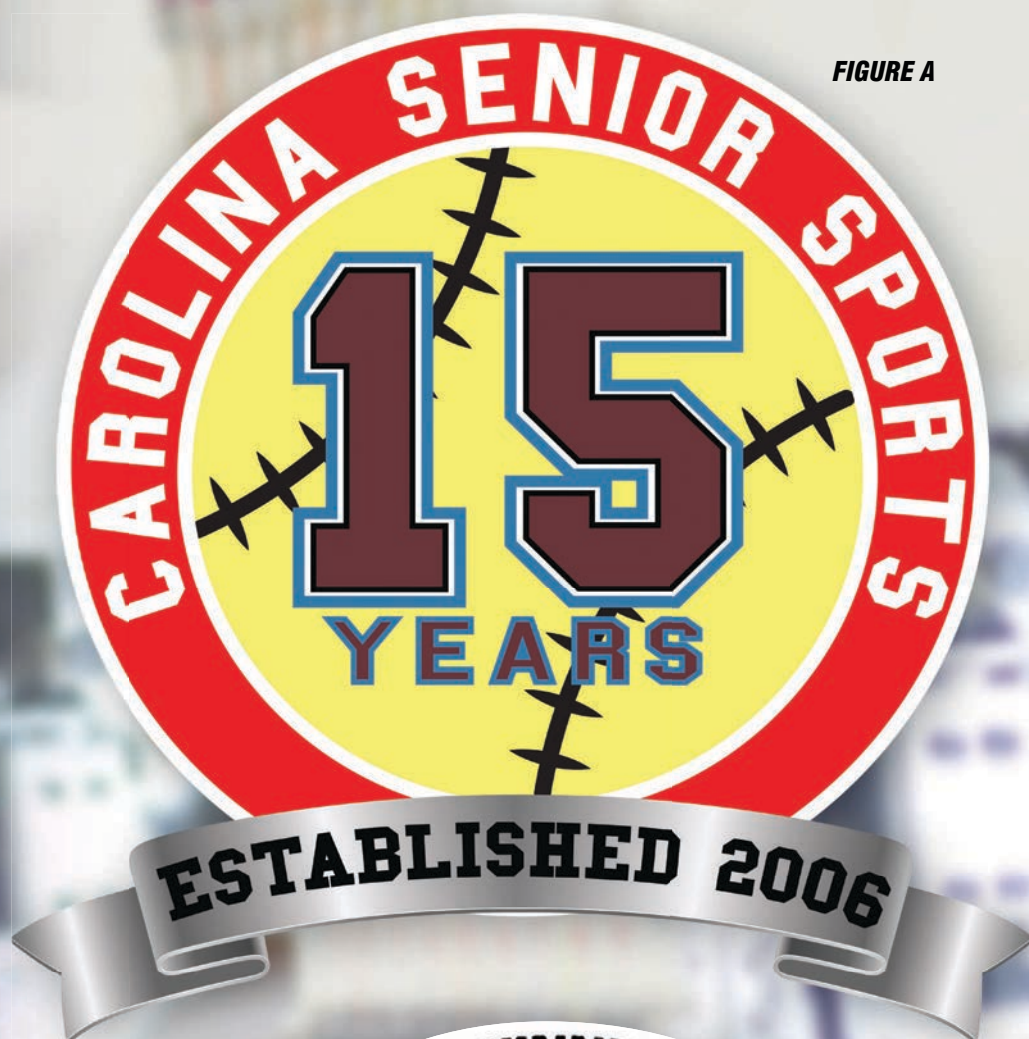
If a customer comes into a single-head

shop and needs 36 jackets with an 80,000 stitch count within two days, simple math says this won't happen, which demonstrates the time aspect. In this case, the customer will either choose a different decoration technique or find an embroiderer with the capacity to handle the job.

The other factor is that since embroidery does have a higher perceived value, there is usually a higher price tag associated with embroidery than with most other common embellishment techniques. Unfortunately, not everyone has the budget to order embroidery, especially as design sizes get larger. Larger designs equal larger stitch counts, which equal longer production time, which equals a higher cost.

In a screen print environment, the number of colors or the size of the design does

FIGURE A



not have a major impact on the actual production time. Setup time is a factor, which should be calculated as part of the equation, but all in all, in terms of production capabilities, embroidery can't compete with a screen print machine.

The perfect solution is to blend a combination of low-cost decoration methods such as screen printing to cover large areas and still provide vibrant colors with the elegance of embroidery.

MULTIMEDIA TECHNIQUE

This combination process gave birth to a term called multimedia. Multimedia is the process of combining one or more decoration techniques with one or more other decoration techniques.

Decorators are often laser focused on a single technique and neglect to consider multimedia as an option. As a re-



FIGURE B

CHECK OUT THIS VIDEO THAT DEMONSTRATES SCREEN PRINTING AND EMBROIDERY ON A T-SHIRT: <http://gpro.link/mixedmedia>.

sult of this, offering multimedia also presents the opportunity to provide options to your customer that are somewhat unique.

Another advantage of providing multimedia is that not every decorator can offer multiple decoration types, which means that you are able to cut off some of your competition as the job will have less companies able to bid on the order.

There are three easy steps in making a multimedia piece:

1. Artwork
2. Placement
3. Alignment

3 STEPS TO MULTIMEDIA PROJECTS

When determining the artwork, it is important to choose the elements carefully as to what will be for embroidery and what will be used for screen printing. In order for a multimedia piece to be effective, you want to have the items look like a natural fit for the process.

Consider whole objects or accent pieces of an object to show off the embroidery. When using multimedia to control stitch count, look for the largest areas of a design. A few moments of careful thought go a long way in creating a design that pops off the garment, provides a stunning result, and most importantly exceeds the expectations of your customer.

Another option is to screen print material and use that material as an appliqué. An appliqué is one piece of material that is combined with another piece of material. An example could be as simple as a large basketball. The orange circle could be screen printed along with the texture of the ball and then it can be applied by embroidering the lines of the ball and the border of the ball to create a beautiful look.



FIGURE C

A well thought out appliqué can reduce stitch count in a design by as much as 80%.

Placement is a key element for multimedia. Since one process is done on one machine and the other process is done on another machine, it is a safe choice to try to have an allowance for variance in design placement. A good safety measure is having a 1/4" buffer for differences between one garment and another.

Let's look at some examples of potential problem areas with a combination screen print and embroidery design. In **Figure A**, notice how the text fits precisely in the circle. Any variance of positioning would be noticeable and create a visual eyesore.

Figure B shows an example of a more suitable choice for placement. Notice how the end result is not affected even if the garment shifts slightly from one item to the next.

Alignment is the final element of concern. Once again, since the item is created on multiple pieces of equipment, there needs to be an alignment factor that helps ensure

that the embroidery will fall into proper alignment with the screen print.

Failure to create an alignment method will make it nearly impossible to know exactly where the embroidery will need to be placed for accurate positioning, even with a built-in variance. It would not be an advantage to create a multimedia piece and have a reduced stitch count if the end result did not line up correctly.

One of the most common methods of alignment is to place a registration mark such as an X or other easily identifiable object on the artwork itself in an area that will ultimately be covered up by the embroidery. Since the mark is in the same exact spot on every garment, it will ease the alignment process. The registration mark serves as the start/stop position of the embroidery.

Once the garment is hooped, simply take it to the embroidery machine and move the pantograph of the embroidery machine to where the needle to be sewn is directly positioned over the registration



FIGURE D

mark. If you have a laser alignment tool that places a red dot over the needle hole, simply move the pantograph of the embroidery machine to the location where the red dot is positioned over the registration mark.

Figure C shows the registration mark on the artwork (the red X shows the alignment mark; the car is in the artwork for

illustration purposes only), and Figure D shows the finished combined screen print and embroidery design. With proper thought, a single screen print design can be used with multiple embroidery designs.

MASTER OF DESIGN

Once you master the combination of screen print and embroidery to create multime-

dia, don't be afraid to branch out into other decoration processes and combine different decoration techniques together. The only limitation is your imagination. **GP**

ED LEVY is an industry veteran and director of software technologies at Hirsch Solutions.



COUNTRY HAWAIIAN?

SCREEN PRINTING A DESIGN THAT FITS BOTH THEMES

We have done work for a number of western brands for over three decades, and you know, we think of ourselves as a bit country. Many of these designs have that flair with a vintage or classic look. They say that what is old is new again. Or as the lyrics in a couple of Aerosmith songs go: “A new version of the old scene,” and, “It’s the same old story/Same old song and dance, my friend.”

As most of you know, we have an affinity for the retro *and* for classic rock ‘n’ roll. So, it is safe to say we are a little bit country *and* a little bit rock ‘n’ roll! (Not sure how we feel about quoting Donnie and Marie though.) When our client wanted us to create a design that was

“Hawaiian, western, and country,” we were up for the task. The direction would be a garment dyed, oversized unisex long-sleeved heavyweight T-shirt for women with that classic beach, tropical sunset scene, but country and western. Hmmm ...

THE ELEMENTS

Since we grew up in the OP (Ocean Pacific) days, we were sure we could dial this in. A popular layout during the ‘80s was a series of colored lines or stripes stacked on one another with tourist destination icons represented in silhouette form. This retro look was the inspiration for this design, with a county and western flavor. We were



For the water, we used a high-contrast photo during sunset to replicate the light-reflective qualities. The foreground had darker ripples and light diffusing off the water as it recedes to the horizon. (All images courtesy Lon Winters)



The horse was almost an entirely black silhouette. We added a slight reflection quality to some of the contours of the animal.

skirting that edge with a very tropical theme. But how would we merge in the cowgirl?

The image would be a mix of graphic presentation with some illustrative qualities and simple in approach. We used an equine element to inject that country theme, though horses aren't strictly tied to western. We went with five stripes, a spectrum of colors from warm to cool, and a good balance for this women's design.

The garment color was ivory, so we used darker outlines for definition of the elements, but not all. The background waters, sun, and mountainous terrain were left bare so that they would fall back and

not compete with the foreground elements. We employed a stipple texture brush from our brush palette in Photoshop to darken recessed areas of the mountain to make it more tonal.

The sun had just enough breakup to simulate distance as would naturally happen with haze or clouds in the sky. This area was only five inches and secondary, so getting carried away with detail didn't make sense. Less is more in this case.

For the water, we used a high-contrast photo during sunset to replicate the light-reflective qualities. The foreground had darker ripples and light diffusing off the water as it recedes to the horizon. The



We kept a graphic look with an illustrative quality for the Hibiscus, which are cone shaped and the center has a deep taper. This was perfect for a shadow to help contour the definition.



The client wanted a very soft hand to all the inks.

solid ripples would be opaque, and the softer halftones would blend wet on wet, creating secondary tones. Those values were knocked out, but we left the softness up to chance. We laid on highlight white to kiss the top of the water where the sun reflects for that little bit of authenticity associated with this scenic look.

The palms and hut on the beach started out as a simple black line, and again we used the stipple textured brush with a few different colors for the warmer tones. We laid colors next to other colors for the illusion of a blended rendering but would be easier to separate. We used a soft white overlay almost like a blending white in the palms and painted in some opaque areas for contrast.

The spirit of the retro stripes was really just to give a nod to that style from the past. They made great end caps as well. We made them thin so it didn't weigh down the bottom.

Tropical theme? We needed a Hibiscus flower, the ambassadorial flower to the islands! They come in various colors, so it was hard to go wrong. We maintained the simplicity of the style and added a bit more color to detail the focal points. We kept a graphic look with an illustrative quality. Hibiscus are cone shaped and the center has

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The finished vintage, retro, old school, tropical, beach, country-Hawaiian T-shirt.

CREATING THE VIBE

The client wanted a very soft hand to all the inks. The colors held up well. Too well. We had to cut them all 50% and more, with the blue and turquoise all the way up to 80%. This added transparency to the inks and contributed to the softness and show through.

Once seps were completed, we outprinted them on CTS at a 55 LPI frequency at 22.5 degrees. We used high meshes on everything starting at 230 and up to 380, all at 35 N/cm and 10% - 15% EOM using 75/90/75 triple-ply dual durometer squeegees. We pre-ironed on press for a smooth base and post ironed after flashing with a smoothing screen to matte down the fibers.

a deep taper. This was perfect for a shadow to help contour the definition.

The horse was the easiest element to create and was almost an entirely black silhouette. We added a slight reflection quality to some of the contours of the animal. Using a little blue ink under a tinted black gave us a blended darker blue.

Additional texturing was added as an overlay on top to simulate a vintage “worn over time” look. We used three different textures—two were fairly coarse and used in the graphic components and one with much softer tones laid over the entire design. Since this design was going on a light-colored substrate, a white printer or base plate was not necessary. We did, however, add a highlight white.

Since the garments were long sleeve, we added a simple two-color type solution with the same print techniques. This finished out the whole vintage, retro, old school, tropical, beach, country-Hawaiian T-shirt. **GP**

At 21 years old, **LON WINTERS** was the production manager for Ocean Pacific and started his 30+ year career reclaiming screens. He’s the president and founder of Colorado-based Graphic Elephants, an international consulting firm and apparel decoration studio specializing in screen printing technical advances, plant design, layout, troubleshooting, productivity, quality analysis, and complete apparel decorating solutions. Learn more at www.graphicelephants.com.

The **TEAM SALES** Report



34 DTG IS YOUR MVP FOR ON-DEMAND TEAM APPAREL.

If you provide sports apparel to a dynamic market that demands instant gratification, customization, variety, and quality, DTG should be key to your business.

40 THE IMPORTANCE OF TEAM SPORTS PARTICIPATION DURING A PANDEMIC

This article outlines the importance of team sports recognition, even during a pandemic, as well as some unique ideas to do so.

44 TEAM SALES REPORT PRODUCT SPOTLIGHT

These items will bring your team sales business to the next level.

46 CREATING CUSTOM ITEMS FOR TEAM AND SPIRITWEAR WITH HEAT TRANSFER

There will be more people than ever itching to get back into team sports, and you should be prepared to provide whatever custom team and spiritwear they need.

50 DIVE INTO THE DATA: TEAM SALES MARKET SURVEY

A look at the current numbers in the team sales arena.

Image courtesy
JDS Industries



If you provide uniforms for community sports teams, that market will soon return with a vengeance. You need to be ready to fill those orders when the stadiums are again flooded with their long-deprived audience. (Image courtesy Kornit Digital)

DTG IS YOUR MVP FOR ON-DEMAND TEAM APPAREL

HOW DTG PRINTING KEEPS YOUR TEAM SPORTS BUSINESS ON TRACK

BY ROBERT ZOCH

If nothing else, 2020 and its COVID-ravaged marketplace demonstrated the paramount importance of understanding “demand.” Meeting customer demand is a good business model. Anticipating it is a better business model. Being able to shift gears and completely change your production model in the face of sudden, drastic disruptions to your market—well, that could be the difference between thriving and vanishing.

KEY PLAYER

Most print businesses producing gear for local sports teams and organizations saw their bread and butter contracts go stale as social distancing curtailed (and sometimes eliminated) such events across the board. Both the pandemic and its impact on consumer demand were felt worldwide.

“Our sector has been significantly reduced because we are very oriented to the world of advertising rather than fashion, and there are no parties or events—sports or otherwise,” says Sergio Alfaro Lloret of Rafa’s Textiles, an imprinted apparel provider based in Valencia, Spain.

New York-based Mendez Printing, which had built its business on providing customized apparel for community organizations,

found its typical demand upended, with demand suddenly coming in the form of personal protective equipment, especially face masks. Using digital direct-to-garment (DTG) print technology, they were able to reorganize their operations for that purpose quickly.

While few disruptions will ever impact the market to the extent COVID-19 has, being able to shift with the times is an invaluable capability in the eCommerce age. Thanks to Amazon, buyers now expect to have any need fulfilled almost instantaneously, and if your operation is ill-prepared to meet those expectations, the uphill climb only gets steeper from there.

If you’re providing uniforms for community sports teams, that market will soon return with a vengeance, and your competitors, each of whom has encountered real consequences of the economic downturn, will be hungrier than ever to win those contracts.

If you’re providing fan gear, you need to be ready to fill those orders when the arenas and stadiums are again flooded with their long-deprived audience. Not to mention, the game they’re returning to will have changed, and those changes require new gear—as any fan with a closet full of Washington Redskins- or Cleveland Indians-branded apparel knows all too well.

Whichever team you serve, the key to weathering these changes and thriving in this new environment is the strength of your on-demand production. For several reasons, DTG printing is your most valuable player in this regard.

PUSH-BUTTON START

With DTG printing, there is no process for building screens, no mixing of plastisol inks or hazardous dyes, and no need for time-consuming sampling processes. If you can upload an image digitally, you can imprint it on any number of fabrics, cure the

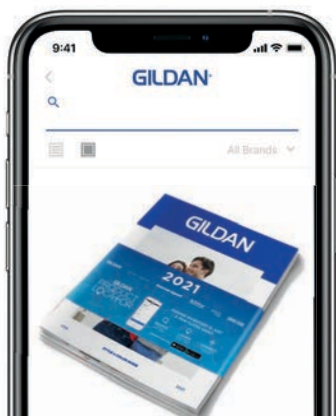
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DTG TEAM APPAREL

piece, and have a retail-quality, ready-to-wear garment shippable within minutes. Furthermore, making minor adjustments to personalize or adjust numbering, as with a team uniform, is accomplished in brief moments.

If you've ever heard of Fanatics, and know about their meteoric rise in the fan apparel business, you can understand why these capabilities are effective. (Fanatics uses the DTG print-on-demand model.)

PROFITABLE IN ANY QUANTITY

As digital requires virtually no time or effort to set up, the cost per print is exceptionally low and consistent. Unlike with screen printing, where a few dozen pieces may be required to make the endeavor cost-effective, you can create in any quantity with a predictable cost, thus making it profitable to deliver gear for a fan base, a team, or just an individual player. With run lengths decreasing across the board—even before social distancing—ensuring profitability has become a greater concern for print shops accustomed to traditional analog processes.



You can create product using DTG equipment in any quantity with a predictable cost, thus making it profitable to deliver gear for a fan base, a team, or an individual player. (Image courtesy ColDesi)

DTG2Go, for example, has built its entire operation on fulfilling short runs quickly and profitably using digital print capabilities. The business prints and ships thousands of orders daily, with an average run length of fewer than two.



Far left: If you can upload an image digitally, you can imprint it on any number of fabrics, cure the piece, and have a retail-quality, ready-to-wear garment shippable within minutes. **Left:** Durability, wash fastness, light fastness, rub fastness—DTG competes on any of these factors. (Images courtesy Kornit Digital)

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DTG now offers its full range of quality, imagery, and efficiency benefits to some of the most popular team apparel and athleisure wear sold today. (Image courtesy Sockprints)



SUSTAINABLE AND SAFE

DTG printing helps eliminate waste, which is beneficial to both your bottom line and the broader industry and ecosystem. When you can produce on demand, and only what is being sold, you eliminate inventory waste—which has proven a million- or even billion-dollar liability for certain brands—and the byproducts of processes such as screen printing (i.e. waste ink) and dye-sublimation (i.e. waste paper) can be removed from the equation. DTG produces virtually no water waste, and promotes a cleaner, tidier, healthier work environment.

These benefits extend to the finished products themselves, as the best DTG systems meet rigorous industry and brand standards for eco-consciousness, are safe and nontoxic for all consumers (including babies), and promise to improve the image of a textile industry that has long wanted for responsible production practices. Even if sustainability isn't your highest priority these days, it's gold for consumers and for your brand—and that sustainability comes hand-in-hand with the other business benefits described here rather than at their expense.

GRAPHIC CAPABILITY

DTG printing is essentially personal inkjet (paper) printing, applied to substrates for purposes of apparel, accessories, home decor, and other applications. As such, state-of-the-art systems offer

nearly unlimited color gamut, precision detail, and photorealistic imagery, at a production cost that's competitive with more limited analog technologies.

If you simply want a reliable mechanism for replicating names and numbers in strong colors on demand, digital can handle that. If you want to print vivid, intense action shots, letting the viewer count the hairs on Tom Brady's head, you can do that, too.

QUALITY

Despite well-documented troubles in the early days of digital textile printing, modern systems are capable of generating imprinted apparel that meets or exceeds the rigorous quality standards of any retail brand today. Durability, wash fastness, light fastness, rub fastness—DTG competes on any of these factors.

I would also count color matching here, as well, and recall the example of Fanatics. Being licensed by major professional and collegiate sports leagues, they are held to an uncompromising standard for matching team colors. With digital, they achieve that standard, always.

ALIGNS WITH ECOMMERCE

Digital production is but one cog in the digital revolution, and as such, digital print systems can now interface with business data and management systems, including those on the production

floor, those dealing with shipping logistics, and your web store and social media sites/how you interact with buyers. Empower customers to create or upload their own designs, commencing a production process that ensures you meet demand precisely and requiring little legwork on your part. In fact, a streamlined, fully digitized operation for on-demand printing uses both workflow software and digital print systems to make the end-to-end process effortless, fulfilling customer needs quickly, regardless of the product.

POLYESTER AND POLY BLENDS

With a chemistry that tends toward dye migration when exposed to high curing temperatures, polyester has long been a bugaboo for digital. In 2019, however, the first system for industrial-scale DTG printing to polyester, including dark poly and blends, reached the market. While screen printing carries the same limitations for poly as with cotton and other common fabrics, and dye-sublimation is mostly limited to white poly,

DTG now offers its full range of quality, imagery, and efficiency benefits to some of the most popular team apparel and athleisure wear sold today.

“Digital printing is an ever-growing business and is key to our business initiatives,” says Cindy Olivarez of GEAR for Sports, a division of Hanesbrands Inc. If you’re providing sports apparel to a dynamic market that demands instant gratification, customization, variety, and quality, it should be key to yours, as well. **TS**



Robert Zoch is global content manager with Kornit Digital, a developer of technologies enabling sustainable, on-demand digital imprinting of textiles and textile goods. Previously, he held a number of marketing and editorial roles with software manufacturer NICE Systems and Lexmark International, a provider of business printing and workflow solutions. Robert received his degree from

Binghamton University and resides in Connecticut.

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GP0221



Despite what some people might say, traditional awards are still a great way to recognize young athletes. (Image courtesy JDS Industries)

While this article might be read by adults, it is all about the kids. It's about team sports for kids. It's about awards for kids participating in team sports. And it's about awards for kids participating in team sports during a pandemic.

We all experience the world from our own unique perspective. The same goes with kids. They are each going through their own unique pandemic experience at the time of this writing. We can think about how, as adults, our lives have changed this past year. And the changes we have experienced are laid against other experiences we have had during the course of our lifetimes. The good

times we have had. The bad times we have survived. The ups and the downs. The gains and losses.

But what about the kids? Aren't they doing the same thing: using their previous life experiences to help them understand this new world order? The difference is they have so much less time to compare this past year to. A 10-year-old has probably five years of memories. So for them, this past year represents about 20% of their entire life. That would be the equivalent of a 10-year pandemic for a 55 year old.

So, when we think about our kids and this pandemic, we should strive to understand why it feels like such a big thing to them. And why it feels like it is lasting so much longer to them.

One of the ways that kids experience life is through participation in team sports. Sports provide so much to kids beyond just physical health, which is important. Other benefits include socialization, building self-esteem, developing determination, practicing teamwork, goal setting, and learning how to win and how to lose.

We can all agree that these are great things for our children to learn. And when kids learn these things, it is worthy of being rewarded. So how do we as an industry support all the great things that come from team sports participation?

THE IMPORTANCE OF TEAM SPORTS PARTICIPATION DURING A PANDEMIC

NONTRADITIONAL AWARDS PRODUCTS TO MEET THE CHANGING MARKET

BY DAN MESSERSCHMIDT

AWARDS OPTIONS AND IDEAS

Despite what some people might say, traditional awards are still a great way to recognize young athletes. At younger ages, kids are often encouraged to participate in a team sport by the adults in their lives. Many times, the child does not want to join a team. But once they do, they are encouraged to work hard and play fair. They learn how to be part of a team. They learn why it is important to show up to every practice and every game. They are being encouraged to lean in and participate.

So, a participation award for all the kids is appropriate. If budgets are tight, think about giving medals versus trophies. Small items like patches are also good non-traditional options.

As kids begin to mature into their sport of choice, it becomes less about rewarding the simple act of participating and more about skills, training, and teamwork. At this level, awards are more focused on achievement. So, while traditional trophies are still acceptable, other types of awards become relevant like achievement certificates, plaques, T-shirts, patches, and water bottles. These non-traditional products open up a whole world of embellishment possibilities.

Many kids will continue participating in team sports as they grow and mature. The teams and leagues become more competitive. Kids learn about goal setting and determination and leadership. Traditional awards are more focused on individual achievements (MVP-type awards) and team success. But let's not forget that the life lessons learned at this level are still worthy of recognition. A wider range of options include rings, towels, clothing, bags, power banks, high-end water bottles, and picture frames along with banners and pennants.



One way to diversify your sports award items is to offer full-color personalization. (Image courtesy Unisub)

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NONTRADITIONAL AWARDS PRODUCTS



For those teams on a budget, or if you're looking for smaller awards products to offer, medals, rings, and emblems are all great options. (Image courtesy JDS Industries)



Retailers that offer only the traditional awards products may find themselves unable to meet the needs of teams looking for new options. Try lasering or sublimating players' names and numbers on items like tumblers and water bottles. (Image courtesy JDS Industries)

NEED FOR DIVERSITY

Retailers that offer only the traditional trophy and awards products may find themselves unable to meet the needs of teams looking for new options. Diversification has become more important than ever, pandemic or no pandemic.

Most shops already have a laser and many have sublimation equipment. With either or both of these techniques, the options are almost endless. Dig into supplier catalogs and websites to see what is available. Think about putting sports-oriented motivational quotes on the facemasks/gaiters the team wears in practice. Try lasering players' names, jersey numbers, and team name on water bottles or power banks.

Another trend that began a few years ago that continues to gain momentum is digital and so-



Think about putting sports-oriented quotes on the face masks/gaiters the team wears in practice. (Image courtesy Augusta Sportswear)



Diversification has become more important than ever, pandemic or no pandemic. (Image courtesy JDS Industries)

cial media marketing. More and more decision-makers are looking to these platforms to find the products that dealers have, especially in a socially distanced world. Successful companies engage in customer interaction every possible way including walk-in business, telephone, email, website, Facebook, Twitter, Pinterest, YouTube, and others. Team sports awards, recognition, and gifts are no different.

If you have not taken the steps necessary to have your business active in all of these areas, I encourage you to make a commitment to your future to do so. Dealers that have added new products, new equipment, and have learned how to reach customers in new ways were able to weather 2020 much better than those that have not.

TIMELESS RECOGNITION

I remember when computers came on the scene and people started saying that there was never going to be an-

other book or magazine or business form needed. We were going paperless. Looking at my office makes that statement seem almost crazy! And just as people have predicted the end of team sports for kids and the businesses that support them like awards dealers, that prediction seems equally unlikely.

Team sports may change, and the way we recognize the kids that are involved in team sports may change, but recognizing, rewarding, and awarding kids for growing, learning, and excelling is timeless. **TS**



Dan Messerschmidt is the National Sales Director for JDS Industries Inc. and is based at their corporate office in Sioux Falls, South Dakota. Prior to joining JDS in 2011, Dan ran a commercial printing company for 15 years.



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TEAM SALES REPORT: PRODUCT SPOTLIGHT

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CUSTOM AWARDS

Pacesetter Awards states that acrylic with Digi-Color imprint and metal cutout accents are only one example of the many uses of mixed materials. Custom awards can be modified by size, or imprinted to fit all budgets.

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JDS Industries has added another color to the Laserable Leatherette line of giftware: red that lasers to a black contrast. Personalized, any product in this line is a useful gift, incentive, or promotional item, states the company.

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TS

SUITING UP WITH SPIRIT

CREATING CUSTOM ITEMS FOR TEAM AND SPIRITWEAR WITH HEAT TRANSFER

BY VICKI NARDINI AND JOHN LOUCKS

Team dealers, licensed merchandise retailers, and team uniform decorators of all shapes and sizes had to rethink their business models when (most) sports came to an abrupt and screeching halt in March 2020. With teams on hold, stadiums and stores shut down, and schools across the country switching to online learning—including colleges and universities—it was time to switch gears.

No teams to suit up? No jersey sales on game night? No customers in your brick and mortar locations? No problem! At least for those who were quickly able to switch sales from up close and personal to online and socially distanced.

SPIRIT GOES ON

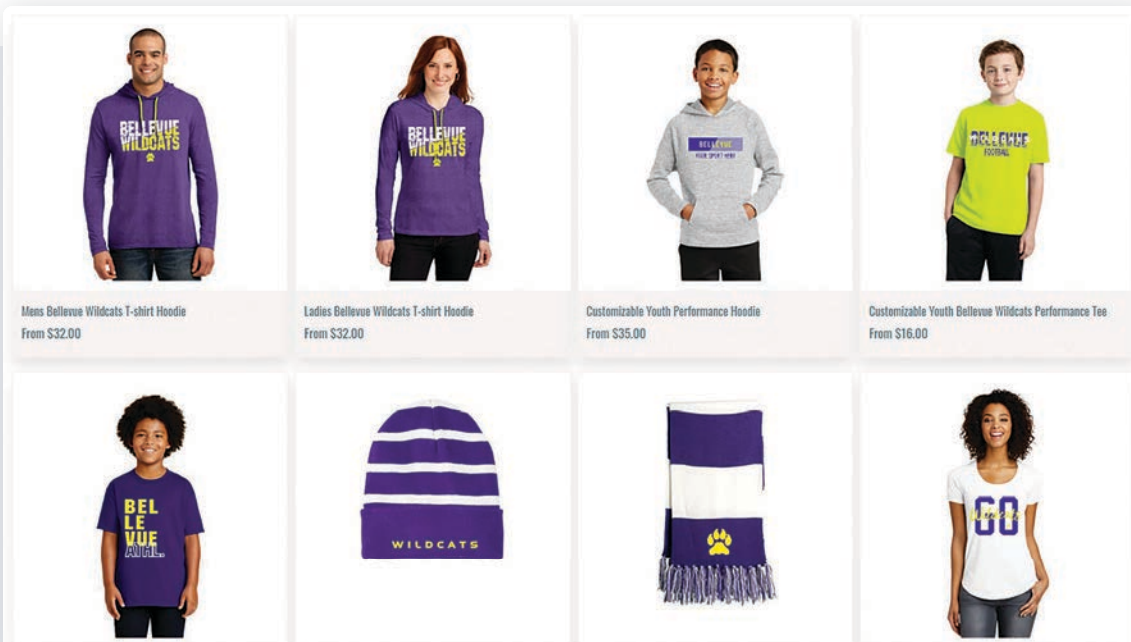
Although playing and watching sports in person wasn't possible, the spirit behind the teams remains. In fact, there is a need for spirit and camaraderie in a new and possibly bigger way. Athletes

and the communities behind them still want to show team pride. High school seniors denied a chance to take the field aren't denied the chance to show school spirit. Many teams and towns rallied behind their athletes in full force from behind closed doors.

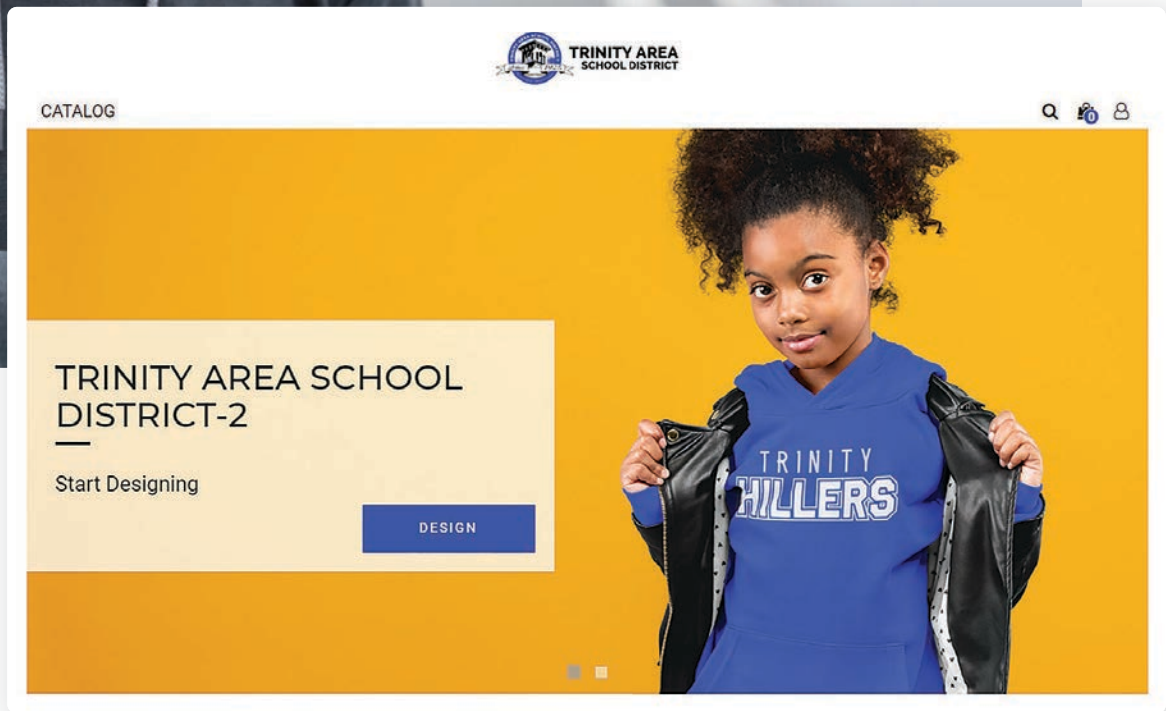
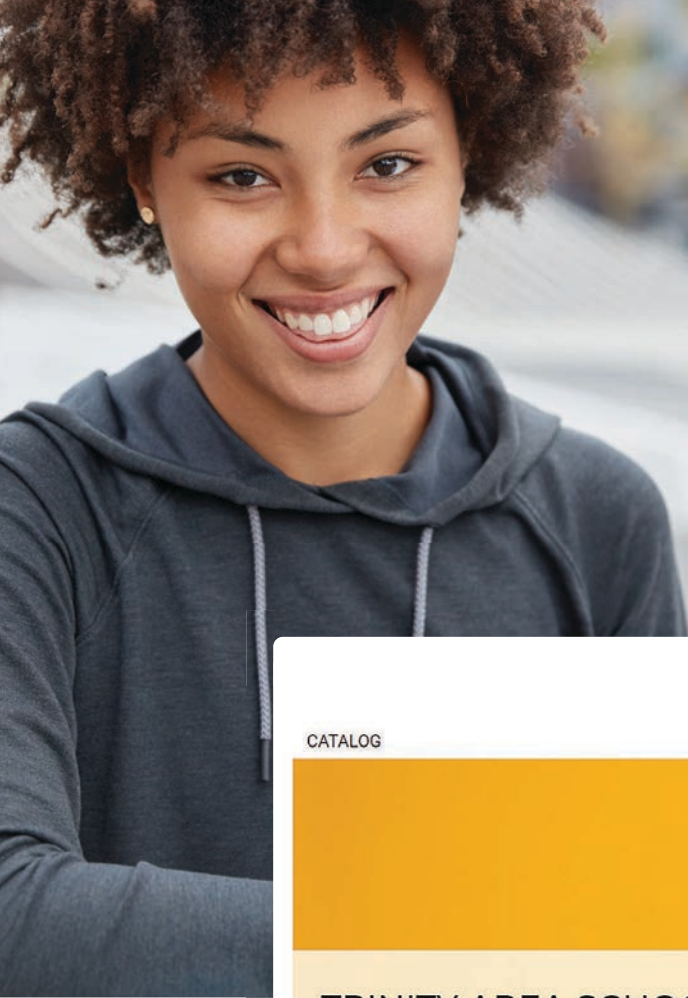
While a team may not need the same practice or team gear that would usually be required in previous seasons, there is still an opportunity to create custom spirit apparel—such as T-shirts, hats, bags, or sweatpants—so the community can participate. With an online store, a team or school has the ability to create a branded website to sell their apparel to friends, family, and students.

ONLINE TO PRODUCTION LINE

Ecommerce continues to shape how we live, work, and of course shop. Online stores can be created to make the purchasing of branded swag easy and fast. More than ever before, fast and convenient online shopping is a must for successful businesses. Custom-



While a team may not need the same practice or team gear that would usually be required in previous seasons, there is still an opportunity to create custom spirit apparel—such as T-shirts, hats, bags, or sweatpants—so the community can participate. (All images courtesy of Stahls')



Online stores can be created to make the purchasing of branded swag easy and fast.

ers shopping from their couches, desktops, and living rooms have an expectation of finding everything online at their fingertips. A click of a button and a customer wants to have their shirt, bag, hat, or any other apparel or non-apparel item selected, purchased, and shipped in minutes.

Online stores benefit more than just the customers. With an integrated online ordering system, the decorator no longer has to worry about misspelled names or wrong sizes. You can offer a wider variety of items and print as you sell. The customer selects, designs, and approves everything in advance. This gives the decorator a better way to keep control of inventory, manage costs, and track sales.

MAKE IT HAPPEN WITH HEAT TRANSFERS

With the flexibility of heat transfers, decorators can now take team logos beyond a jersey. Heat transfers allow profitable “made on demand” printing possible. Plus, you can have a design small enough to fit on a cap or the side of a shirt. With today’s advanced

ink formulations, you can order low-temperature adhesive transfers to print on a windbreaker or tri-blend shirt.

Even if you’ve screen printed the team logo on shirts, you can quickly and easily add a custom name using heat transfer vinyl. With a heat press, you have the perfect solution to create any type of personalized team swag. Booster clubs now have new opportunities to get their school and community support of their team; they can now continue to do this in our virtual world.

EXPAND PRODUCT OFFERING

Now your team sales aren’t limited to jerseys or performance wear. Hats are continuing to rise in popularity with the increase in innovation and trends. A hat is the perfect place for a team logo with the flexibility to apply a name or number on the side, something previously unheard of. That same logo can be applied to a left chest, can cooler, bag, or even socks, giving the team maximum exposure and impressions.

A decorator can create a page exclusively for that school with

SPIRITWEAR HEAT TRANSFERS

a set open and close date with predetermined limited inventory. The school can select a specific number of items they want listed, attach a fundraising goal, or even try out a new school slogan. This is a place where a team can be a team again.

Use stores and apparel to remind the community what it felt like to be in the stands and to cheer on their team. They can pick out a phrase of their choosing or a type of apparel they want to wear around town to support their friends and colleagues. They can show off where their kid goes to school, who they think will eventually win the world series, or which player they favor in their fantasy football league. With a little social media promotion, parents, students, and fans will have a place to buy their team or school pride gear and place funds to keep programs running.

THE FUNDRAISING SIDE HUSTLE

Earlier in the year, we were introduced to a mom that was doing apparel decoration as a side business. Her children were attending school virtually and all in-person activities and sports were on hold until further notice. The school decided to host a virtual homecoming event to open the school year, creating a need for some school pride.

With the urging of other parents, this mom ordered blank shirts, hats, bags, and transfers to make some things for their small community. As kids started to post photos on social media with their new swag, the requests started pouring in. Eventually the school approached the mom about doing a custom shirt and pennants for the virtual homecoming event. Everyone that signed up for the event was requested to make a donation to the school and received a shirt.

This is just one opportunity to use spiritwear in new ways. Everyone attending the virtual event was able to show team pride, create unity in the school, and support a small business similar to what a live event would have produced.

Online stores also open up new ways for fundraising from a distance. Now contributors from across the country can participate and you're not just limited to attendees of an in-person event. This is a trend we see continuing for a long time to come. With fewer chili cook-offs or bake sales on the calendar, there's no need for a gap in support of teams and clubs. We have also seen the trend of selling branded and spirited apparel pivot to other businesses like dry cleaners or restaurants.

BUSINESSES HELPING BUSINESSES

Another popular pivot with a silver lining—anyone who can print shirts on demand is able to bring in extra income. Not only did T-shirts become one of the most popular fashion items thanks to casualwear exploding in popularity, but statement shirts are also still a big thing. Sales of custom merchandise such as custom T's and hats can help keep businesses afloat.

For example, a restaurant that has to transition to take-out only sales can also sell custom merchandise to make up for other losses. Entire websites are dedicated to "shop local" merchandise events, with proceeds going to help keep local businesses alive.

THE SPRING SPORTS-PLOSION

This type of proactive online selling to meet the growing demand for custom wear is something your business can offer. Just like a team that's been able to use its downtime to get in better shape

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Make Design Selections

FRONT

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Size

XS S M L XL

Color

View Size Chart and Product Specifications

Quantity: 1

ADD TO CART

Stay charged in this moisture-wicking, color-preserving fleece in heathered yarn dye. 100% polyester yarn-dyed fleece with PosiCharge technology. Three-panel hood with solid lining. No drawcords at hood. Taped neck. Raglan sleeves. Front pouch pocket. Self-fabric cuffs and hem. If applying sublimation, special care must be taken throughout the process. Contact your decorator for more details.

Even if you've screen printed the team logo on shirts, you can quickly and easily add a custom name using heat transfer vinyl.

than ever for this season, hopefully your business is also well positioned to bounce back and serve your customers better than ever.

There are going to be more people than ever itching to get back into team sports, and you should be prepared to provide whatever custom team and spiritwear they need. And since everyone is so used to ordering online, why not keep that positive aspect alive and well? There's never been a better time to automate and organize your online business. If you've had to pivot sales to include T-shirts, hats, and even masks, you may see the benefits of continuing these custom items even when sports fully resume. **TS**



Vicki Nardini is the GroupeSTAHL Director of Event Sales & Marketing. With over six years of experience in the imprinted sportswear industry, she knows what it takes to build a successful custom apparel business and is familiar with multiple garment-decorating technologies. **John Loucks** is the National Sales Manager for GroupeSTAHL an international manufacturer, distributor, and direct supplier in the field of custom textile printing. With 13 years in industry experience ranging from technical support to Territory Manager and now Sales Manager, John has the industry knowledge to provide expertise for both growth and trends in the B2B markets as well as to final consumer.



FEATURED PRODUCTS

A decorator can create a page exclusively for a school with a set open and close date with pre-determined limited inventory. The school can select a specific number of items they want listed, attach a fundraising goal, or even try out a new school slogan.



District ® Girls Perfect Tri ® Tee
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Pullover Hooded Sweatshirt. PC90YH
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Gildan ® Heavy Cotton™ Youth 3/4-Sleeve Raglan T-Shirt. 5700B
From \$22.00

Zoom: 67%



\$20.00

Size

XS S M L XL

Color



View Size Chart and Product Specifications

Quantity:

1

ADD TO CART



DIVE INTO THE DATA

TEAM SALES MARKET SURVEY

BY GRAPHICS PRO STAFF

As the graphics industry continues to change through the natural flow of events, the COVID-19 pandemic has had some extenuating effects in most segments, including team sales. While many businesses in this segment were able to quickly pivot and come up with new ideas, there are some areas where these effects continue to be felt on a larger scale.

Following is this year's survey results from the team sales market. You will also find some analysis from previous years, though keep in mind that there were fewer respondents this year when looking at the data. While the response rate to this year's survey was low, we felt it important to acknowledge the effects of COVID-19 as well as continue to look at the numbers as the current situation evolves.

This survey was conducted through electronic mail via SurveyMonkey.com and complied with all CAN-SPAM act laws and NBM's privacy policy, as found here: nbm.com/privacy-statement. Respondents were selected from the GRAPHICS PRO subscriber database and all survey recipients were provided the same version of the survey, which was distributed in November and December of 2020. Some survey totals equal more than 100% because readers checked all the categories that apply.

REVENUES AND OUTLOOK

73% of respondents reported team sales revenues of over \$5,000.

This number has remained steady over the last three years.



Not surprisingly, the majority of respondents reported that overall revenues for team sales in 2020 either stayed the same (**21%**) or **decreased (67%)**.



The majority of respondents reported that overall revenues for team sales in 2019 either stayed the same (**43%**) or **increased (46%)**.



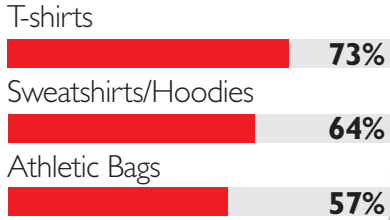
The majority of respondents reported that overall revenues for team sales in 2018 either stayed the same (**41%**) or **increased (46%)**.



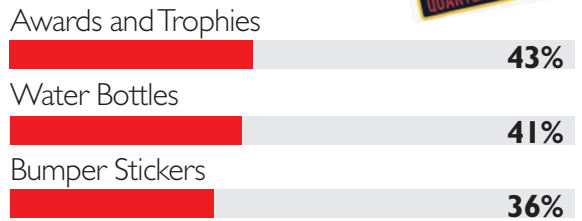
When asked whether the COVID-19 pandemic affected team sales revenue, **77%** responded that it has had major effects.

PRODUCT BREAKDOWN

Top 3 Types of Apparel Products Offered:



Top 3 Types of Awards and ID Products Offered:

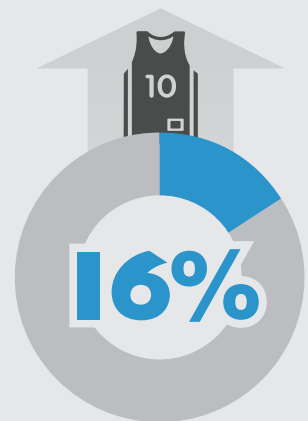


Products Being Sold:

Approximately **30%** of respondents reported a decrease in sales of awards/trophies in 2020 compared to **22%** in 2019 and **15%** in 2018.

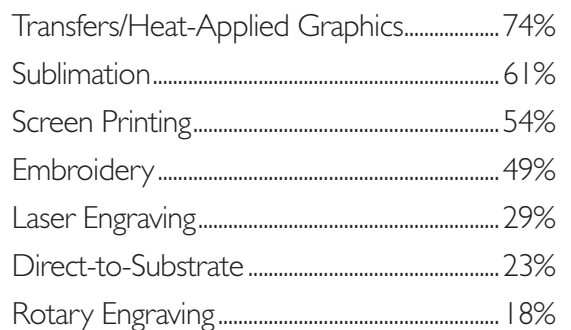


This year's survey found that only **16%** of respondents saw an increase in sales from uniforms and jerseys. **28%** saw an increase in 2019, and **25%** saw an increase in 2018.



DECORATION PREFERENCES

Decoration Techniques Used for Team Sales:



TS



SCREEN PRINTING AND THE DIGITAL WORKFLOW

AN OVERVIEW OF SCREEN PRINTING AND THE PREPARATION OF FILM POSITIVES

You are no doubt aware of the many methods for transferring ink to a substrate. The most common ones like offset lithography, inkjet printing, and laser printing are all used to create multiple identical images. Serigraphy is among these common printing methods and is arguably the most versatile. In this article, we'll look at the ins and outs of serigraphy or in the parlance of the work-a-day world, screen printing.

A BRIEF HISTORY

The first evidence of screen printing appeared in China during the Song Dynasty (960–1279 AD). It spread to other Asian countries like Japan and Korea where it was developed and refined.

Screen printing migrated to Western Europe from Asia sometime in the late 18th century and was slow to gain acceptance until silk mesh became avail-

able for trade from Asia. It was used sparingly in the 19th century and took hold a century later as a viable commercial form of printing.

In 1910, a technique was developed to combine photo-reactive chemicals with the hardening traits of potassium, sodium, or ammonium chromate and dichromate chemicals with glues and gelatin compounds to create emulsions, which led to the development of photo-imaged stencils. The universal acceptance of this method took decades due in part to the toxicity of the materials, though nowadays commercial screen printing uses emulsions that are far safer, less toxic, and more versatile than the early materials.

AUTOMATION

Another important milestone worth mentioning is the introduction of the rotatable multicolor garment screen

printing machine introduced in the 1960s. The invention of this machine was responsible for the mass commercial printing on T-shirts and other garments that currently accounts for over half of the screen printing activity in the United States by machines automating the printing process and enabling full-scale production of single and multicolored garments (Figure 1).

WHERE'S THE SILK?

Traditionally, the process was called silk-screen printing because silk was used as the mesh material. Silk was originally used before the invention of polymer because it is a fine mesh material that is resistant to solvent-based inks. These days there is not a lot of silk being used in commercial screen printing.

Silk has been replaced by synthetic threads. The most popular meshes in general usage are made of polyester. Mesh materials made of nylon or even stainless steel are frequently used for various special applications. Mesh sizes vary depending on required quality, the finished design, and the specific substrate to which the design is printed.

THE PROCESS

A piece of mesh is tightly stretched over a frame, which is usually made of wood or aluminum. A stencil is applied that blocks off parts of the screen where ink is not wanted. Conversely, the open spaces that are not blocked by the stencil are where the ink will appear when printed to the substrate.

An emulsion is scooped across the mesh. Once this emulsion has dried, it is exposed to ultraviolet light through a film positive with the design. The ex-

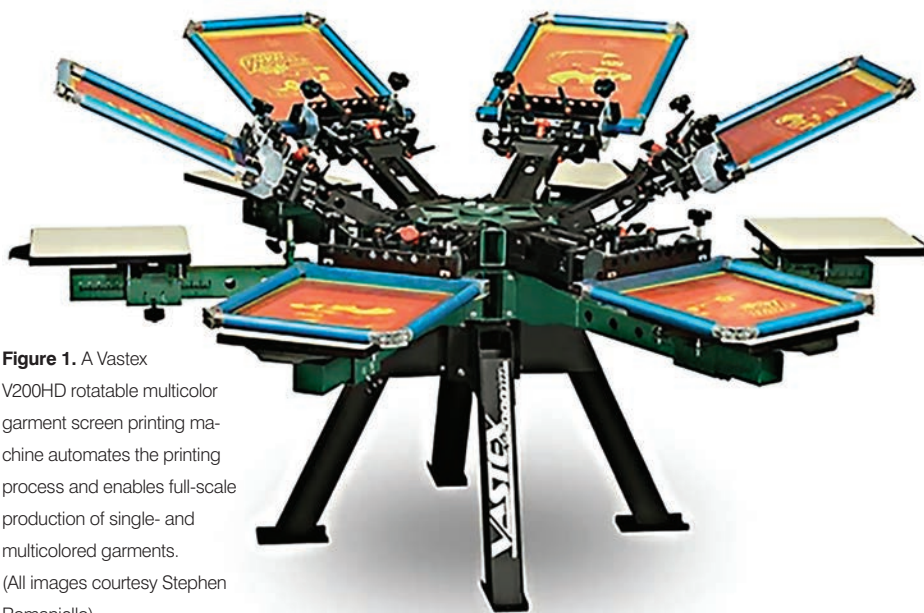


Figure 1. A Vastex V200HD rotatable multicolor garment screen printing machine automates the printing process and enables full-scale production of single- and multicolored garments. (All images courtesy Stephen Romaniello)

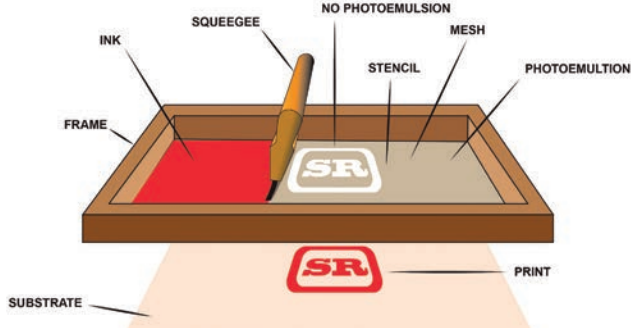


Figure 2. A diagram of a screen. The screen is placed on a substrate, and a reservoir of ink is poured onto the screen. A squeegee is used to push the ink through the areas void of emulsion onto the substrate.



Figure 3. A film positive output from a computer onto a piece of transparent printable film.

Price and other details may vary based on size and color

Figure 4. All you need is a computer, graphics software like Photoshop, an inkjet or laser printer, and some printable transparent film, which you can purchase anywhere.



Figure 5. Each color should be on a separate layer and labeled with the color's name and should have registration marks so that the screens can be perfectly aligned when printing.

posed areas of the image harden while the unexposed areas remain soft. The softer areas are washed away, leaving behind an area in the mesh void of emulsion in the shape of the image. This is where the ink will pass through when the image is printed.

Before printing, the screen is scrutinized and any unwanted pinholes in the emulsion are blocked out. The edges of the screen are taped so unwanted ink can't seep through onto the substrate.

The screen is placed on a substrate. A reservoir of ink is poured onto the screen,

and a squeegee is used to push the ink through the holes in the mesh onto the substrate (Figure 2).

STENCILS

The stencil is a non-permeable material that masks the areas that won't be printed and allows ink to transfer through the open unmasked spaces. Using a traditional method, stencils can be hand cut in the desired shape and attached to the screen or painted directly on the screen with a filler material that becomes impermeable when it dries.

ARTISTIC TECHNIQUE

For a more artistic technique, the artist can paint directly on the screen with water-based drawing fluid. After the solution dries, the entire screen is coated with screen filler. When the filler has dried, the screen is sprayed with water, washing out the areas that were drawn with the drawing fluid and leaving the surrounding areas masked with the dried screen filler.

PHOTO EMULSION

An easy method for creating stencils that

has taken hold over the past 70 years is the photo emulsion stencil. The original image can be drawn directly on a piece of clear acetate or more often than not created on a computer with graphics software and output to transparent film called a *film positive* (Figure 3).

It is critical that the black areas on the film positive are opaque. The film positive is placed on an emulsion-coated screen. The screen is exposed to ultraviolet light in the nanometer spectrum range of 350-420. The UV light passes through the clear areas of the film positive and hardens the emulsion through the process of polymerization. The areas masked by the black regions of the film positive are thoroughly washed away with a water spray, leaving the uncoated areas of the screen for the ink to pass through during the printing process.

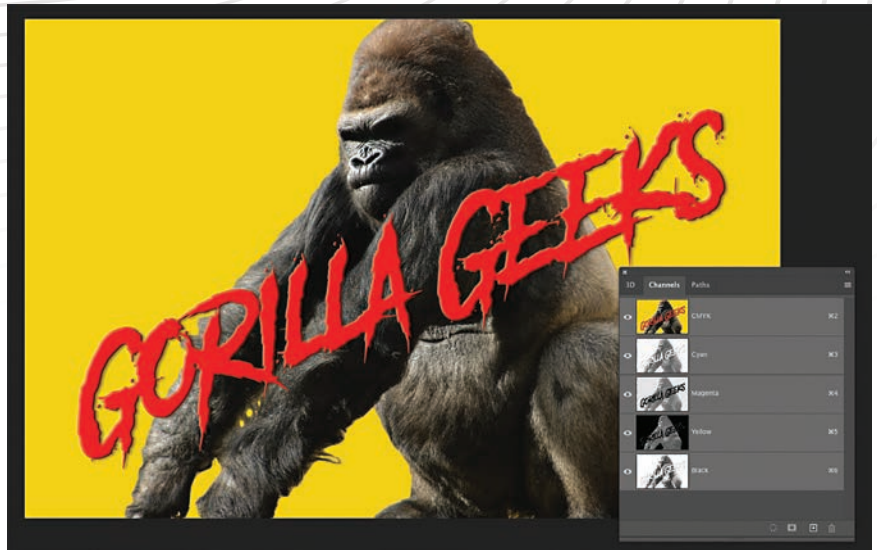


Figure 6. You see five channels each representing the four colors: cyan, magenta, yellow, and black, and the full color composite channel.

Photographic emulsion screens can produce minute detail. Multicolored photographic images can be made when color-separated halftone screens are used as film positives. These screens can produce large runs as the emulsion is quite durable, and

it's easy to output transparent overlays from any black and white image.

USES

Screen printing for certain applications is preferable to other printing methods such as dye-sublimation or inkjet printing because of its low cost and the ability to print on many types of media and surfaces.

Although textiles are the most common items that are screen printed, tens of thousands of other items—everything from clock faces to balloons, signage, and cardboard boxes—are screen printed. Screen printing is even used for the ultra precision printing of conductors and resistors on circuit boards.

DIGITAL HYBRID

Digital hybrid printing (DHP) combines analog screen printing and digital direct-to-garment inkjet printing. A DHP system consists of an automated screen press with a CMYK digital printer located on one of the print stations.

Essentially, once the garment has run through each color station, an inkjet printer applies a printed image overlaid on the colors, in the form of a CMYK print. This technique allows for extreme speed and versatility in the printing of complex artwork.

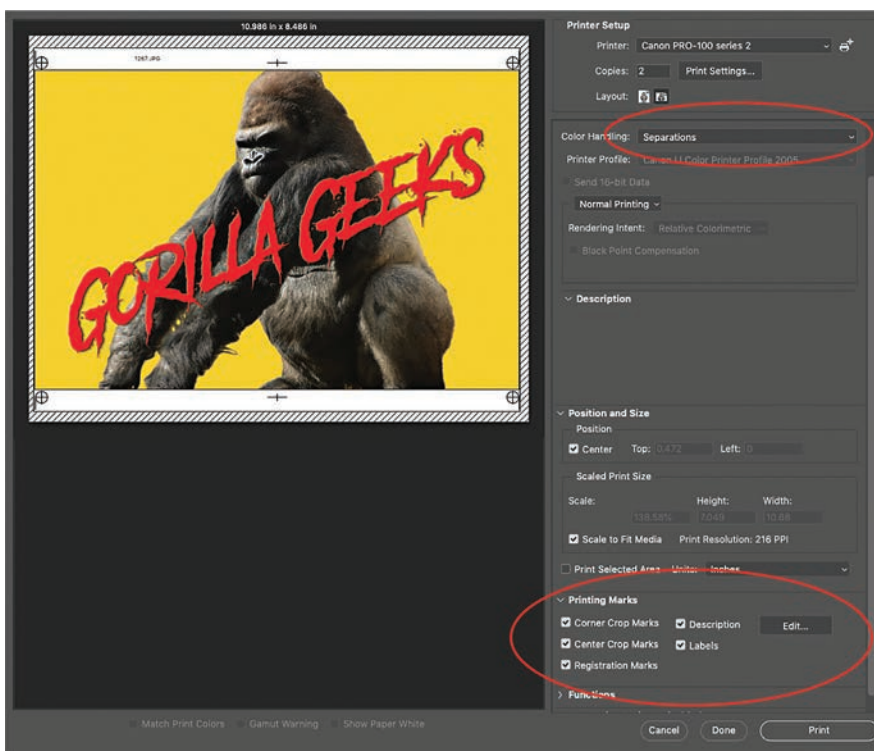


Figure 7. Select Separations from the Color Handling menu. At the bottom of the screen, you see the Printing Marks area. Check the Corner Crop Marks and Registration Marks boxes. Be sure to check the Labels box so that the film will be labeled with the appropriate color.

TUTORIAL

Following, I describe how to use software to create film positives. All you need is a computer, graphics software like Photoshop, an inkjet or laser printer, and some printable transparent film, which you can purchase anywhere; I found it on Amazon (Figure 4).

I'll present three different scenarios for single-color, multi-colored, and photographic images.

Single-Color Print

Start by creating or scanning your illustration into the software. You can assign a color to the image to see what it looks like on screen. Before printing, though, you'll change the color to black. Print the black image to a piece of transparent film and viola! There you have it.

Multi-Colored Print

When there is more than one color to the illustration, multiple film positives are made in order to burn each color to a separate screen. If the colors do not overlap, design the image so that the colors butt against each other with a one-point overlap (called a *trap*). Each color should be on a separate layer and labeled with the color's name.

Create registration marks that align on each layer so that when the prints are made, each screen can be precisely aligned for perfect registration. Select the content of each layer and fill it with black. Then print each of the black layers onto a separate film positive by printing the contents of one layer at a time.

In Photoshop, you can do this by simply concealing all of the layers in the Layers panel, except the one you want to print. Figure 5 shows how a three-color illustration is structured.

Photographic Print

A photographic screen print is a little different in that you'll create four halftones, called a *color separation*, one for each color in CMYK color mode. You'll need to separate the colors before making the film positives. First convert the image to

CMYK (Image>Mode>CMYK). Then look at the Channels panel. You'll see five channels representing the four colors cyan, magenta, yellow, and black and the full-color composite channel (Figure 6). These can be printed individually on your inkjet or laser printer, but it's much easier to go to the Print menu and choose separations from the Color Handling menu.

At the bottom of the screen, you'll see

continued on page 94



Figure 8. Artists such as Andy Warhol have used screen printing as an expression of creativity and artistic vision. This is a famous multicolored screen print of Marilyn Monroe circa 1967 with four variations by Andy Warhol.

**LEARN HOW TO CORRECT ARTWORK TO MAKE IT SEPARATION
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Anatomy of a Care Sheet

TIPS FOR CREATING A WRAP MAINTENANCE SHEET

BY CHARITY JACKSON



Vehicle wraps are an investment for your customers. Whether it's a commercial wrap that provides mobile advertising or a color change wrap that protects the vehicle's paint, it's important that you provide your customer with tips to properly maintain their wrap.

When a customer picks up their wrapped vehicle, one of the first questions we get is how to wash the car, which leads to further questions on maintenance. Having a pre-printed maintenance sheet that provides answers to all these questions makes your time at the counter more efficient, and also provides a reference for the customer once they get home.

HANDOUT

There are general tips that provide a guideline for customers. These help ensure the wrap not only looks good, but that the graphics don't start lifting. Also, check out manufacturer product bulletins for the vi-

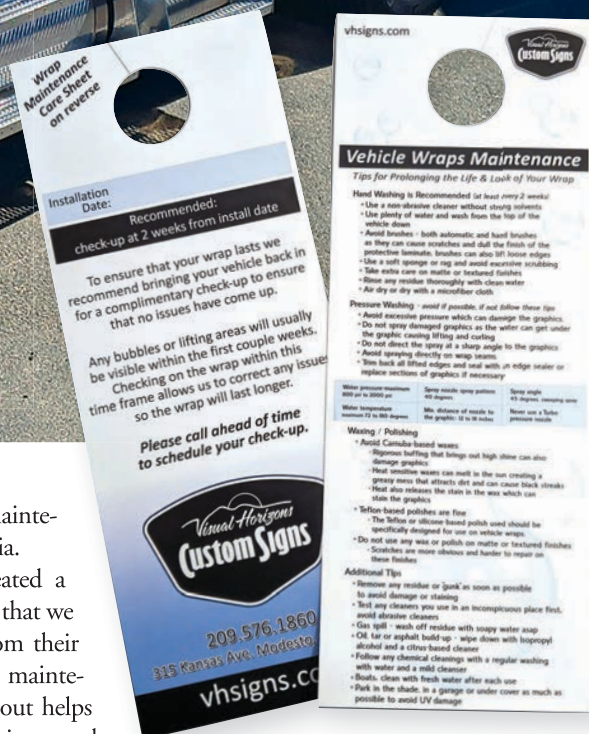
nyl media you use to garner maintenance tips unique to that media.

For our customers, we created a full-color printed door hanger that we either hand them or hang from their rearview mirror with proper maintenance information. The handout helps them remember our instructions and hopefully encourages them to follow through. Following is a breakdown of the information we include to help you build your own instruction sheet.

WASHING

Most of the wraps we do are commercial wraps, and while a majority of our customers take good care of their investment, we've seen our share of vehicles come back in filthy. Sometimes we're just adding something to the wrap, or the customer is in another business and we see the vehicle, but a wrap that is left dirty can cause damage to the graphics. Manufacturer bulletins recommend a wrapped vehicle be washed ev-

We use a double-sided, full-color printed door hanger for our care sheets with the care tips clearly spelled out, making it easy for customers to reference. (Images courtesy Charity Jackson)





Hand washing is always the best bet, but on large vehicles and fleets, it's not always practical. Pressure washing is the usual solution, so providing safety tips is essential. (Images courtesy Charity Jackson)





Excessive pressure or sharp angles can damage or remove graphics from the vehicle's surface. (Image courtesy Charity Jackson)

If any fuel is spilled onto a wrapped vehicle, it's important the area is wiped as quickly as possible. This should be followed up by a soapy wash, rinse, and dry as noted above. Tougher contaminants like bug splatters, bird droppings, and tree sap should be removed as soon as possible. If they dry on the surface of the wrap, they should be softened with hot soapy water before washing to avoid damaging the wrap's surface.

"Can I still take it through the car wash?" This is probably the most common question we get asked and the answer is, "Yes." But hand washing or touchless car washes are the best option to avoid dulling, lifting, or scratching of the surface of the graphics that can be caused by the brushes in some car washes.

PRESSURE WASHING

Since we do a lot of commercial wraps and

fleet graphics, many of our customers use professional pressure washing companies to clean their vehicles. For larger vehicles and trailers, hand washing is too time-consuming, so pressure washing is the most efficient option.

This means we often get asked about pressure washing, which is an option as long as it's done correctly. It's much easier to lift or remove graphics off a wrapped vehicle with a pressure washer, so we include a list of do's and don'ts on our handout:

- Avoid excessive pressure
- Do not spray damaged graphics as water can get under the graphic, causing lifting and curling
- Do not direct the spray at a sharp angle to the graphics
- Avoid spraying directly on wrap seams
- Trim back all lifted edges and seal with an edge sealer or replace sections of graphics if necessary

- Maximum water pressure: 800-2,000 PSI
- Spray nozzle pattern: 40 degrees
- Spray angle: 45 degrees, sweeping spray
- Water temperature: maximum 72-80 F
- Minimum distance of nozzle to graphic: 12"-18"
- Never use a Turbo pressure nozzle

WAX

Another question we often hear is if the customer can wax over the wrap. I'm sure the thinking is that this will protect the graphics, but it could actually cause damage. We let our customers know that a Teflon-based polish is fine, and that they should look for one that is specifically designed for wraps.

Carnauba-based waxes should be avoided. These waxes melt in the sun and become greasy, attracting dirt. The stain in the wax can also damage the surface of the graphics.

If the wrap is a matte or textured finish,



then waxes or polishes should be avoided. Only products specifically designed for these finishes should be used.

PRODUCTS

There are many products on the market that are specifically designed for cleaning and maintaining wrapped vehicles. Look for products that do not contain any petroleum distillates.

For these after-care products, consider the wrap's finish. Matte, textured, or chrome vinyls may not use the same products as you would use on a gloss finish. Look for products that are specifically designed for the finish of the wrap.

Auto Sauce is a line of products that are designed to protect and enhance wrapped vehicles. These products are designed to reduce maintenance times and increase the life of the wrap. Check them out at www.autosauce.net.

You should also consider manufacturer recommendations based on the media you're using. There are a surprising number of products on the market; this list contains manufacturer suggested washes, cleaners, and sealants:

- 3M recommends a wet, non-abrasive detergent like 3M Car Wash soap 39000, Meguiar's NXT Generation Car Wash, or Deep Crystal Car Wash
- Avery Dennison recommends its Supreme Wrap Care Cleaner, Power Cleaner, and Supreme Care Sealant
- Additional products on Avery Dennison's recommended cleaners list include Croftgate Wrap Care, Croftgate Wrap Care After Care JP, Whoosh Tine & Vinyl Cleaner, Four Star Ultimate Spray Wax Plus, Simple Green, Turtle Wax Ice, and a 50/50 isopropyl alcohol/water mix
- Hexis lists the Protech line of products

for wrap after-care including Protech Eclat Max Surface Polish/Wax, Protech laser wash, Protech car wrap shampoo, and Protech Matt & Clean polish/wax

CHECK-UP

One other way to help your customer's wrap look great and last a long time is to offer a vehicle check-up approximately two weeks after the vehicle is wrapped. Since any issues (like bubbles or lifting) usually present themselves within the first two weeks, this allows you to fix them before they become a bigger problem. **GP**

CHARITY JACKSON is co-owner of Visual Horizons Custom Signs based in Modesto, California. She has been in business since 1995, and has worked in the sign industry for over 25 years. You can visit her website at www.vhsigns.com.

How to Prepare for the Arrival of Your New CNC Router

BY CASSIE GREEN

Any time a shop purchases a new piece of equipment, there are a lot of factors that must be considered: how does it work? What software is needed? What's the learning curve? Where will it go? And that's just the beginning. Shops also must train all employees who will use the equipment as well as get projects lined up and do some test runs.

But before that can happen, and before the equipment is even purchased, there is a whole other set of considerations that must be dealt with, especially in the case of a CNC router. There are many factors that must be examined with this equipment: size/where the machine will go (yes, there are desktop CNC routers), what software is required, cost,

CNC routers can do some amazing things once you understand everything that's involved. Sometimes the hardest step is the first one. (Image courtesy ShopBot Tools)

and perhaps most importantly, why the shop is looking to purchase the equipment in the first place.

SIZE MATTERS

Before you even start looking at technical sheets for a new CNC router, the first thing most anyone will advise you to do is to make sure you need it. If your customer base doesn't support it or you won't use it, it's not worth the purchase.

"How does a CNC router impact your business? If you're already paying a premium for custom CNC router work, it very quickly makes sense to keep the profit you're giving away," says Brent Al-

lard, Industrial CNC. "If you're buying a premade product that you could easily make yourself with a CNC router, such as channel letter faces, sign blanks, stencils, or carved signage, you may be able to increase your profit dramatically by producing these products in house."

"The purchase of an industrial CNC router is typically one of the biggest capital expenditures that a company will consider," adds Kevin Recinos, AXYZ. "The router is typically being looked at to automate a current process that may be done manually."

Going hand in hand with the profit question is the size question—you can't consid-

er one without considering the other. "The first question should revolve around the primary intended application(s) for which a CNC is needed. This of course leads to the equally important tool size sub-question," states Buddy Warner, ShopBot Tools. He suggests asking yourself what the largest material blank size is that you envision machining.

And if we're going to talk about size, it's not only the project size you need to think about. CNC routers come in everything from desktop machines for smaller projects to those that can produce large signage. "It is important to think about the space required and how the machine

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Above and right:

When preparing to add a CNC router to your business, one of the main considerations is size; anything from desktop to larger table sizes are available. (Images courtesy ShopBot Tools)



Carved signage is just one of the many projects that a CNC router is capable of creating. (Image courtesy Industrial CNC)



will be moved into the building,” notes Jason Friesen, Laguna Tools. You must also pay attention to the type of power in your shop: single phase or three phase. “Most CNC routers can run on both single or three phase power, but this will be something the machine manufacturer will need to know.”

Since there are so many physical considerations to keep in mind, Friesen suggests doing a little shop layout planning. “First I would make sure I lay out the area the machine will be going into,” he says. From there, make sure the necessary electrical is in place.

But none of that will matter if you can't get it through the door. “If your shop does not have a large rollup door or opening,

you will likely not want to purchase a fully pre-assembled large table router that could require tearing out a wall just to get the tool in the building,” states Warner. You'll also need a clear path from the door to the final landing place to move the machine in.

These considerations are, of course, mostly tied to the larger equipment. Smaller machines carry a different set of preparation steps. “Some smaller desktop-style tools do not require as much preparation other than having an appropriate size workbench or stand ready,” notes Warner. Weight will play a factor here so keep in mind that heavier machines are harder to support and move.

Another thought when it comes to the size conversation is that of materials, both

those to be processed on the CNC router and those that won't be. “You'll want to make sure you can bring in/out the material you'll be cutting as easily as possible,” Allard states. “You may also want to anticipate adding a dust collector to keep the dust down.” This point is particularly important if your shop does other things like printing.

SOFTWARE, AND MORE

One advantage established graphics shops have when adding new equipment is that most are familiar with some sort of software. While different machines run with different software, for the most part those who have familiarity with graphics suites will most likely learn software

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Above: It's important to think about the space required for the machine as well as how it will get into your shop. (Image courtesy Laguna Tools) **Below:** CNC technology varies in its usage and applications. A shop's needs will depend on projected future growth and expansion. (Image courtesy XYZ)

Right: Equally as important as space is the electrical setup available to run the machine. Check what's available in your shop and work with the manufacturer. (Image courtesy Industrial CNC)



associated with CNC routers quickly.

“Your CNC router will come with CAD/CAM software, which communicates your drawing and cutting parameters to the CNC and tells the machine what to do and where to machine,” says Friesen. “The design portion is definitely the hard part, but since most sign makers and printers are already familiar with this it makes things much easier.”

“Software has steadily improved over the years but that’s not to say there is no learning curve,” Warner states. Most vendors offer video training to help get you started, and of course YouTube is always one avenue to take. “You certainly do not need to know how to do everything in order to get started, but the video approach makes it easier to learn new features and functions in the software rather than having to dig through a manual,” he adds.

Additionally, shops should determine ahead of time *who* will operate the machine. “The addition of a CNC router will require shops to pick a lead CNC operator,” says Recinos. This will greatly impact the training portion after the machine arrives. “(For us), training is conducted by a certified technical support specialist who will cover the basics of a CNC router and show the lead operator(s) the day-to-day operational requirements of the machine.”

One way to prepare for this new learning curve is to work ahead. “I like to have my customers start working on the software as soon as possible, even if they are a few months away from purchasing a CNC router,” says Friesen. “Learning the software ahead of time will ensure you are ready to go as soon as the machine is delivered.”

Recinos agrees, recommending that shops prepare some real projects as part of the training. “This will aid in the integration of the new cutting technology,” he believes.

When it comes to general education on the equipment, there are a lot of roads you

can take before you make your purchase. If you still aren’t sure if the machine is the right choice for you, start by actually seeing and working with one. “You might visit a shop that has one,” suggests Allard. But for the most part, it’s easy equipment to learn. “CNC is now easy enough that one shouldn’t feel they need classes to get up and running,” he feels. “Nowadays, anyone can learn to use a CNC machine very quickly as long they have the time to spend learning.”

FINAL THOUGHTS

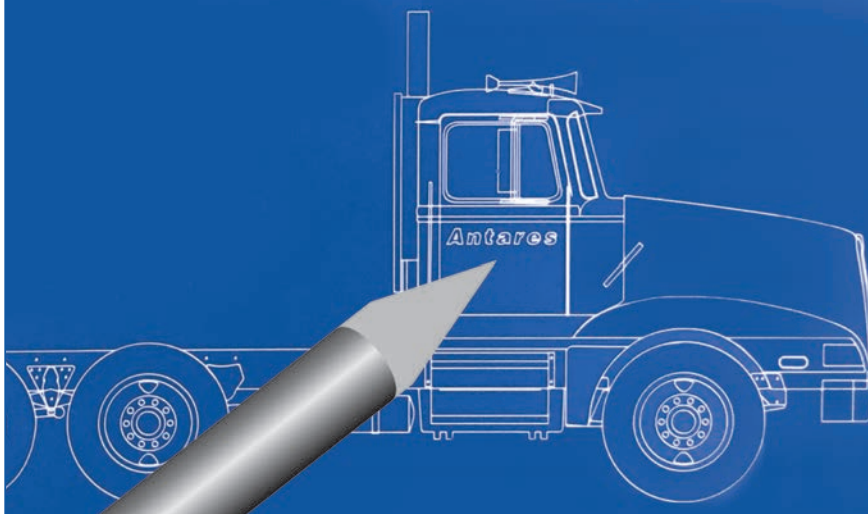
If you’re still on the fence about whether to purchase a CNC router, or even how to prepare to add the equipment to your business, there are a few final points to consider. “It would be rare (to find a) shop that would not benefit from a

CNC,” believes Warner. “Once word gets out that a shop has a CNC and people see your work (and yes, you should take lots of pictures), you’ll begin seeing an increase in business.”

“A CNC router may be the most versatile piece of equipment on the market,” adds Allard. “Anyone with a serious interest can learn to do CNC work much more easily than ever before. Whether a one-man shop or a large company, they’re also more affordable than you think.” **GP**

CASSIE GREEN is the executive editor of *GRAPHICS PRO* magazine, and previously served as the editor for *A&E* magazine. You can reach her at 720-566-7278 or cgreen@nbm.com.

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TALE OF TWO LOGOS

TIPS FOR WORKING IN METAL AND ACRYLIC

Recently, one of our clients completed a new office facility a few miles from the shop and contacted us about logos for the exterior and interior of his new place.

On the outside, he had hired his general contractor to build a brick and wood monument sign facing one way, approximately 6' X 8' in size including the brick columns. The main part of the sign where his logo, and a smaller logo for a tenant of his, would go was made of a rough textured and stained wood.

STUD MOUNT

On the inside of the building, in his reception area, they covered a wall with some weathered wood, and he wanted just his logo displayed on that wall. It was determined we'd use 1/4"-thick powder-coated aluminum for the exterior work, but on the inside we decided to make a custom version of his logo using 1/4"-thick black acrylic with thin brushed aluminum overlays made from .040 prefinished aluminum sheet.

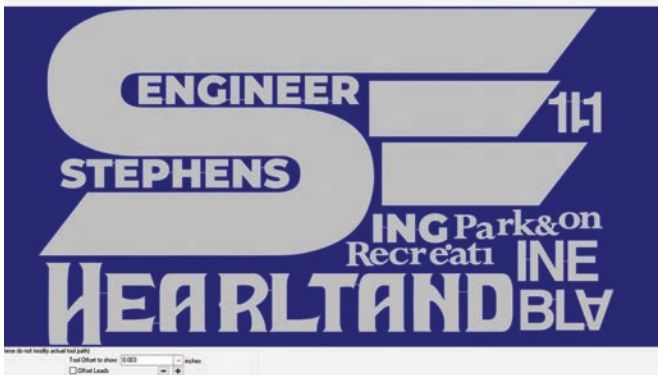
In both cases, my intention was to

"stud mount" these items in ways a bit less typical so we would not do excessive damage to either the inside wall or the outside wood-faced monument sign, as there was a possibility that sometime in the future these graphic displays might have to change.

On the all-metal outside version, there were a lot of parts because the display for his company involved 22 letters overall, and the tenant's logo involved 24 letters in four different sizes. These exterior parts were cut from 5052 aluminum plate on a



These two logo jobs for a client with a new facility look similar but use different materials and special methods of installation. (All images courtesy Rick Williams)



This screen capture from the waterjet cut file shows the multitude of small metal parts we would be working with.



The exterior logo parts and letters were all cut from .25"-thick plate aluminum and were prepared for a special version of stud mounting.

waterjet but could have been cut in several passes on a router, and at that thickness, they can be drilled and tapped for 3/16" studs in the typical fashion. However, I did not want to have to drill the 1/4" diameter size holes needed for that install if I could do it using smaller hardware.

I also had to hang all of the aluminum letters for powder coating and then have some type of small stud in place for the installation. Instead of drilling and tapping for #10 size threads, the parts were drilled from behind with only a 3/32" bit, and we used

button head #8 sheet metal screws, which were forced in these shallow drilled holes.

To do this, the sharp points of the screws were dulled on a bench sander, then a screw was set in a hole on the back of a letter and held in place with a Phillips screwdriver. To set into the hole, the screwdriver was tapped once lightly with a hammer. This forces a screw to wedge itself into the small hole just a bit, and a half a turn made firmly with a screwdriver holds the screws securely for powder coating and/or stud mounting.

On this job, after powder coating, these

large head screws were replaced with smaller #6 X 1" stainless steel screws that were turned about a half to one full turn, which fully secured them in place. With just this amount of threading, these small, permanent studs were set well enough that they could not be removed without tools. The head of these small stainless screws were nipped off with a small bolt cutter and our "micro-studs" were good to go.

For small aluminum letters, these shop-made studs would be fine on any job and do not require actual tapping for



Instead of drilling threaded studs, typically 3/16 diameter, these parts were drilled with a small 3/32" bit and threading would not be needed.



Small #8 screws with oversize heads would be put in the backs of each letter or logo part so parts could be hung for powder coating, but their sharp points were dulled a bit so they would not make protrusions on the fronts of the letters.



A light hammer tap on the screwdriver allows the screws to get a bite into the small holes on the backs of each part, and a simple half turn sets them firmly.



These buttonhead screws were chosen for hanging the letters for powder coating, since powder coat hooks won't slide over them.

SHOP TALK



Some parts were hung for coating with hooks, others were daisy-chained together with small wire (like the ones in this picture).



After coating, the buttonhead screws were removed, and smaller #6 size stainless screws were threaded in place to create micro-studs.



A pattern was printed on paper and then parts were set over the pattern accurately pressed into place, creating an accurate hole pattern for the install.



In this small box were several layers of studded parts with corrugated plastic sheets placed between layers.

threads. We could have wrapped small wire around the heads of the smaller screws for hanging when powder coated or painting and deleted the larger head screws altogether.

(Note: As a test, I tried this micro-stud shallow thread technique to see if aluminum letters as thin as .125" thick could actually be stud mounted, or even just hung for powder coating or painting without drilling holes through them. If done carefully, the answer is absolutely yes as shown in the photo on page 71.)

EXTERIOR SIGN

Out in the field, a hole pattern, which we had marked with the sharp micro-studs on the backs of our parts, was placed on the wood-faced monument sign and secured with thumb tacks. The most accurate way to drill a wood sign for stud mounting of any kind is to drill very small pilot holes first. Smaller diameter drill bits lessen the chance of them following the grain of the wood. A very small, sharp drill bit will ignore the grain, and the final drill bit size will

stay on course in these pilot holes. This step is not unimportant, as it will make for a far more accurate install with fewer corrections to get letters lined up perfectly.

Our final hole size was from 1/8" to 3/16" in size depending on how accurate our drilling job was for each hole. We still had a lot of holes that would have to be filled in, and the sign would need to be repainted if the design ever changed, but no real damage to the wood was done. Clear silicone—very



Out in the field, the pattern was accurately secured in place with pushpins into a wooden-surfaced monument sign.



To keep a drill bit from following the woodgrain and being inaccurate, pilot holes of very small size (again 3/32) were drilled as straight and true as possible.



This sign involved a lot of parts and a lot of drilling, but the damage caused by all the holes was kept at a minimum by the use of special smaller shop-made studs.



This is the final version, with a powder-coated silver address added to the top.



This cut file was for a black acrylic logo cutout, which included .040 thin brushed aluminum overlays applied to the acrylic.

little of it—was used to secure the parts in place on that monument sign.

The masking that had been put on the surface of each letter was not removed until the sign was finished and the glue was set. Getting any amount of silicone on the surface of the logo parts is a pain, so the transfer tape protective coating we put there stayed until the end.

Again, it is important to note that our micro-studs were stainless steel so they would never create rust marks or stains on this light-colored wooden sign, even over

many years. Since we were not using regular aluminum threaded studs, we needed to go stainless for our modified hardware.

INTERIOR SIGN

The sign looked great and the client was happy outside; now it was time to get the inside done as well. Typically we would cut acrylic letters or logos on our laser, but the large “S” of our client’s logo was bigger than the sheet size of our laser, so all the acrylic parts were waterjet cut; the thin aluminum parts that decorated them was to be water-

jet cut anyway. A typical sign shop CO₂ laser may mark or engrave metal, but it will not cut through even thin .040 aluminum sheet.

Once all the parts were produced in black acrylic and brushed silver aluminum, the metal overlays for the silver surface of this logo were applied using thin, clear double-sided tape. We used banner tape, which is perfectly fine for inside work, but not that great as a permanent metal to acrylic adhesive if going outside (don’t ask me how I know). But, we did not want to

SHOP TALK



This logo, though made from acrylic, had to be cut on our waterjet because part of it was larger than would fit in our CO₂ laser.



Cutting the thin (.040) brushed aluminum overlay parts on our old Omax waterjet.



Double-sided tape is used to secure the metal parts to our acrylic components.



The 1/4"-wide margin around the metal parts provides a contrasting border for parts going on a gray weathered wood wall.

use any thicker double-sided tape as the silver overlays needed to lay flat against the black acrylic.

The acrylic was cut about 1/4" over size in all directions, providing a striking border to increase the contrast between the brushed aluminum surface of the logo and the gray-colored wooden wall. The final look was just what the client wanted, but how to secure to the wall without drilling a lot of damaging holes?

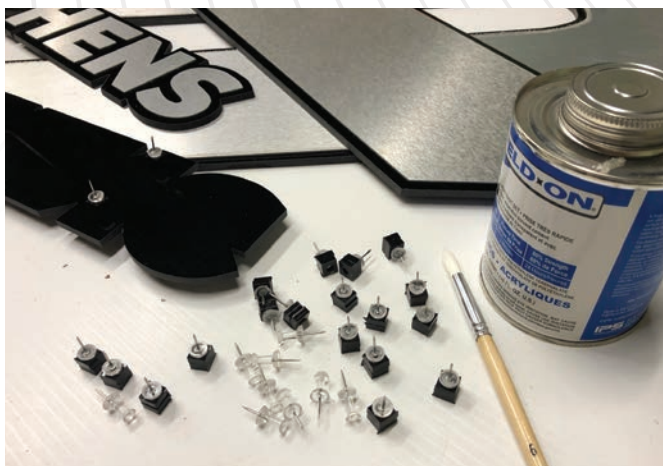
I have shown this step before for acrylic parts mounted to interior walls, but we make our own sharp small studs using

trimmed off pushpins and small discs or squares cut from acrylic scrap on our laser. The acrylic body of the pushpins is easily glued in place using medium thickness acrylic solvent glue. It is easy to create our own mounting hardware items, as many as we need.

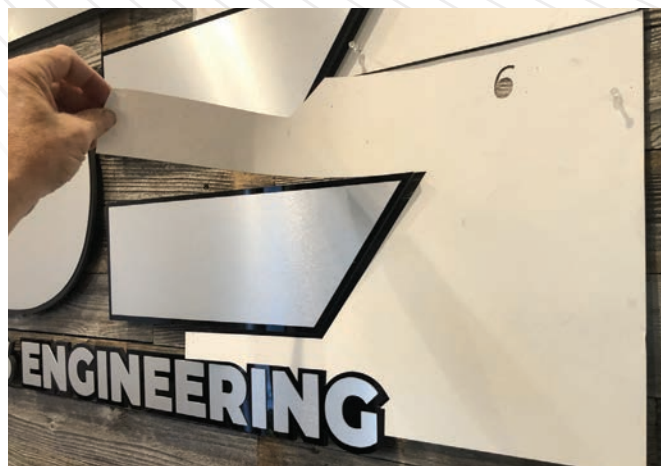
Then these small, very sharp parts are glued to the backs of our acrylic logo parts using the same acrylic solvent glue. At this point, since they needed to stand up to some stress when forced into the wall, it was a good plan to let the glue dry for several hours or overnight. The glue may

seem dry after a few minutes but really has to cure out to attain maximum strength.

Out on the job, a pattern cut from pieces of thin poster board and tacked in place on the wall gives us clear directions as to where things go, and can be repositioned easily until we are satisfied with exactly how things will line up. Great care is taken in locating where the grooves between boards are located in relation to our logo parts, making sure our design runs parallel with the boards even if the boards are not perfectly level. Having a perfectly level graphic on an imperfectly level wall



Shop-made mini-studs, very sharp to penetrate the wall without drilling, are made from modified pushpins and small parts cut on our laser.



A pattern, in sections, made of thin poster board that is also laser cut was used to accurately guide the installation.



This photo shows the final look of this composite shop-made logo, installed without damaging our client's wall.



As an experiment, these three aluminum letters, only 1/8" thick, were set up for hanging for coating and potential "no hole" stud mounting, a real trick with .125" metal but possible. Dulling the points of the screws with sander or grinder first is a must.

is not a good thing. The lines in the wall are what the human eye will see.

The photos do not show this, but the large "S" of our client's logo was bulky and somewhat heavy, so with the pattern in place, we tacked very small nails along the bottom edge of where the "S" would go to support its weight and ensure that when the micro-studs were pushed into the wall, the part was level and located exactly where it needed to be.

The four smaller parts were aligned with the pattern and also just pushed into place on the wall. Care was taken to ap-

ply pressure directly over each stud so the studs would go straight into the wall. No adhesive was used, but unless someone seriously tries to remove the logo, it will stay exactly where it was placed.

Installing this second logo this way did no damage whatsoever to the decorative wall inside our client's reception area, and any future revision of things will not require repairing damage first. This is no small thing, as that type of repair might well require replacing much of the wood on that wall.

Jobs like this are fun to do and can be

made to suit the customer's needs even more than he or she is aware of, protecting them from future expense and repair, and giving the client a high-quality product that will last for many years to come. **GP**

RICK WILLIAMS owns Rick's Sign Company, a commercial sign shop in Longview, Texas. He has been in the sign industry since 1973 and has been a contributing editor to *Sign Business*, *Sign & Digital Graphics*, and *GRAPHICS PRO* since 1986. Contact Rick via email at ricksignco@aol.com.

PRODUCT SPOTLIGHT: TOOLS AND ANCILLARY ITEMS

For more on the suppliers featured in this section, please see contact information following each product.

APPAREL DECORATING



ORGANIC AND SUSTAINABLE PRODUCTS

Lawson manufactures eco-friendly, soy-based products for the environmentally conscious screen print shop. Lawson offers stencil removers, press washes, mesh degreasers, and ink degradants that are soybean- and citrus-based chemicals. Lawson offers different products in pourable containers, instead of aerosol cans.

314-382-9300

www.golawson.com



CUSTOM STENCILS

Ikonart custom stencils are reusable screen printing stencils to print anything from shirts to signs and other media. The Ikonart Kit comes with a lightweight exposure unit, Ikonart stencil film, inkjet and laser printer film, squeegee and clipboard, and no messy emulsion.

218-626-6426

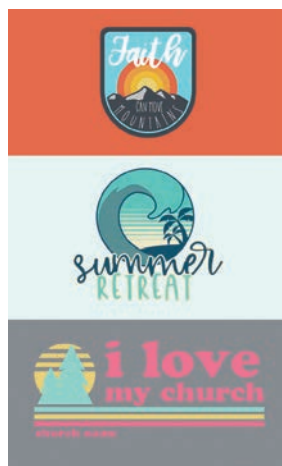
www.ikonartstencil.com

CAP SCREENS

RhinoTech manufactures cap screens that are made of powder-coated flex steel that are available in 110 and 125 white mesh counts. Yellow mesh counts in 160, 200, 230, and 305 are also available. These cap frames slide into the curved subframe that matches the cap platen shape. Snap and lock into place on the printer.

651-686-5027

www.rhinotechinc.com



GRAPHICS COLLECTION

Digital Art Solutions introduces Graphics Builder 7. Collection 7, with its ready-made layouts, includes vector graphics, textures, and fonts. This stand-alone software program features retail-inspired interactive design templates and illustrations, each with 72 editable designs and 72 illustrations.

www.digitalartsolutions.com

CIRCLE NAME BADGES

Circle Name Badges offered by **NameBadges International** can be used for promotions, elections, community gatherings, causes, messages, charities, organizations, schools, corporate identification, and a wide range of events. These buttons measure 2 11/64" X 2 11/64" and include full-color printing of graphics and text.

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AWARDS & CUSTOMIZATION



LASER MARKING PASTE AND SPRAY

CerMark ULTRA black laser marking paste and spray from **Johnson Plastics Plus** offer a formulation that creates durable marks while maintaining glass and ceramic substrate integrity, states the company. CerMark Ultra is specifically formulated to laser mark on all markable substrates such as metals, glass, ceramics, and more.

800-869-7800
www.jpplus.com



DESKTOP LASER ENGRAVER

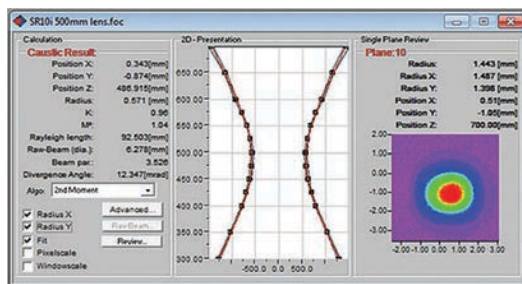
GCC introduces the E200 desktop laser engraver featuring a closed-loop servo motor. The E200 is suited for hobby users, personalization, the education market for STEM and FabLab, and the gift/promotion market. Each machine comes with free materials with a barcode sticker, and the software will automatically set parameters by reading the barcode.

909-718-0248
www.gccworld.com

DESKTOP DYE-SUB PRINTER

Epson announces its 8 1/2"-wide desktop dye-sublimation printer, the SureColor F170. Designed to deliver dye-sublimation printing right out of the box, the printer is recommended for home or small businesses and start-ups looking to expand their product offering into the gifting and promo goods sector.

www.proimaging.epson.com



LASER MARKING SYSTEM

Luxinar's laser source portfolio of OEM, SCX, and SR series can be used in a range of industries, including consumer electronics, automotive manufacturing, fashion, food and beverage, packaging,

glass, and medical and pharmaceutical. Sealed CO₂ laser sources are based on a diffusion-cooled slab principle to produce a round and symmetrical beam, and its MULTISCAN laser marking systems offer an inkless method to apply text, graphics, and barcodes to a wide range of materials.

+44 (0)1482 650088
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SUBLIMATION INKS

Marco Awards Group releases the latest UHD Sublijet ink for the new Sawgrass Virtuoso printers, SG500 and SG1000. The UHD ink is offered in black, yellow, cyan, and magenta.

800-229-6592
www.marcoawardsgroup.com

PRODUCT SPOTLIGHT: TOOLS AND ANCILLARY ITEMS

AWARDS & CUSTOMIZATION



LASER MASK

IKONICS Imaging offers its Blazer Orange laser mask. Apply, laser, sandcarve, and peel. Reduce glass fractures from laser processing and increase your ROI with stage-carving on most items, states the company.

800-643-1037

www.ikonicsimaging.com



ENGRAVING TOOL

RDZ introduces the RDZ diamond engraver. The RDZ spring-loaded tool will engrave on different types of materials, which include brass, aluminum, fiberboard, acrylic, and more. Tools are available with 60-, 90-, and 120-degree tips. Replacement tips are available.

860-350-9014

www.rdzengraver.com

SIGNAGE & PRINTING



ACRYLIC CAP

DurMark, available from **Rowmark**, has been engineered with a chemical-resistant cap layer that can be laser or rotary engraved. This 100% acrylic cap comes with a matte finish pressed to a modified acrylic core. DurMark is designed to withstand increased wear for outdoor usage with outstanding UV resistance, states the company.

www.rowmark.com



REPLACEMENT INK

Budget Inks introduces Mimaki ES and SS21 Ultra. These inks provide OEM-matched colors. Mimaki ES and SS21 Ultra is compatible with OEM inks and cartridges, which allows you to change out inks color by color without flushing. Mimaki Ultra is engineered specifically for Mimaki print heads and to match OEM.

www.budget-inks.com

HYBRID PRINTER

The **Durst** P5 350 HS can print at over 600 square meters per hour, which is twice the speed of the Durst P5 350 standard model. It can be configured with up to nine color channels including light colors and white, and varnish for special multilayer printing applications.

www.durstus.com



SIGNAGE & PRINTING



PRINTER TAKE-UP SYSTEM

Mutoh America Inc. announces the heavy-duty feed and take-up system for the roll-to-roll XpertJet printers. The XpertJet HD feed and take-up system can hold rolls up to 220 pounds. It also comes with adjustable tension bars as well as adjustable feed and take-up roll holders to ensure the system is parallel to the printer's platen.

www.mutoh.com



LED DISPLAYS

SNA Displays introduces its all-in-one direct-view LED product series, ASPECT. The initial rollout of the plug-and-play displays includes four standard sizes, all in 16:9 aspect ratio and high-definition (HD) resolution: AS108, AS135, AS162, and AS216, indicating diagonal inches. Each all-in-one display has a slim 4" depth, including its frame, and comes pre-configured.

www.snadisplays.com

PHOTO AND ART REPRODUCTION PRODUCTS

4S Graphics announces its new line of products for photo and art reproduction, the Rang Print Canvas. Rang woven canvas comes in top-coated pure cotton, poly-cotton, pure polyester, and recycled polyester fabrics with ink-receptive coating. Rang Print Canvas has no bleaches or solvents added and are entirely PVC free. Rang Canvas can all be stretched and stapled for framing purposes.

954-493-6484

www.rangprintcanvas.com



BANNER MATERIAL

LexJet introduces HP 15-oz. Prime double-sided blockout banner and HP 18-oz. Prime double-sided pole banner, part of HP's Prime Vinyl line. These banners can be used for indoor and outdoor banners and printed single- or double-sided. They are compatible with latex, solvent, eco-solvent, and UV curable technology.

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One step to take before purchasing a laser machine is to decide which products and market you want to serve. One popular segment in the graphics industry is personalized products, such as drinkware. (Image courtesy Epilog Laser)

The Laser Experience

TIPS ON DETERMINING WHAT LASER IS RIGHT FOR YOUR BUSINESS

BY PAULA AVEN GLADYCH



Like other equipment used in the graphics industry, laser engravers continue to improve. In the past five years, a number of innovations have taken place that make these devices not only useful to the industries that have always been attracted to them but to new ones as well. Laser engraver manufacturers get a lot of their inspiration from their customers and base many of the machines' improvements on their suggestions, says Mandi Smallwood, AP Laser.

Sign makers, woodworkers, and awards and engraving industries are still some of the biggest users of laser engravers, but a handful of new industries have realized just how useful these devices can be, including the funeral monument industry, which has

learned that it can laser engrave photo-quality images on headstones and monuments.

NEW TO THE INDUSTRY

Shops that are new to laser engraving should determine what types of products they want to engrave before purchasing a laser. If they want to engrave on a variety of substrates, a CO₂ laser is a good option. While it can engrave on plastics, wood, glass, and leather, it can't engrave on bare metal, though it can leave black marks on coated metals.

If your main mission is to engrave directly onto base metals, a fiber laser is your best choice. Fiber lasers can engrave on silicon, gemstones, plastics, polymers, ceramics, thin films, and stone as well.

Many companies want to get into engraving personalized items like insulated mugs, glasses, or leather items. Before attempting to personalize any of these products, Adam Voigt, Kern Laser Systems, recommends doing a test run with different wattages and speeds to find the right settings.

Mike Dean, Epilog Laser, agrees, saying that learning the power and speed settings is something easy to do that becomes intuitive after a while. The settings recommended by each laser manufacturer are a good starting point. From there, the shop can play around by changing the power and speed until they get the desired result.

Another point new users should consider is graphics. Laser engraving is "very

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When the laser hits glass, it chips the surface. Adjusting the settings helps ensure a quality finished product. (Image courtesy Epilog Laser)

straightforward and pretty simple. The learning curve is in creating designs,” says Smallwood. “The graphic design side is where people get hung up.”

To help, most manufacturers offer training for their users. For example, every person that buys a laser machine from AP Lazer gets eight hours of training, two hours on the laser and learning about laser maintenance and the other six hours on CorelDRAW, iD Works, and PhotoGrav, the software programs that come with its laser engraving machines.

Epilog Laser offers its customers a training suite that walks them through a couple of exercises to teach them how to operate the laser. “Learning the laser is 5% of the process. Anybody that knows CorelDRAW or Illustrator can be up and running in a matter of a



A laser engraver is capable of producing high-quality photographs on a variety of substrates, including anodized aluminum. Note that there are certain metals that cannot be marked by a CO₂ machine without a marking agent. (Image courtesy Kern Laser Systems)



It is important to learn how a laser reacts to a variety of materials, which can take time and some trial and error. For example, wood requires different settings than marble. (Images courtesy Trotec Laser)



**HAVING TROUBLE DECIDING ON A LASER?
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<http://gpro.link/laserpurchase>.

few minutes,” notes Dean. “Over 90% of our customers already have graphic experience because they are doing sublimation or something along those lines.”

David Stevens, Trotec Laser, agrees that learning the graphics software is the hardest part. “If the user is already well-versed with a graphics program, the next step is the preparation of the designs specifically for laser processing,” he says.

DIFFERENT SUBSTRATES

It is important to learn how a laser reacts to a variety of materials, which can take time and some trial and error. “Some manufacturers offer additional online educational resources as well as in-person workshops that will support your ongoing laser knowl-

edge. With these means, the user can learn quickly and easily from step-by-step tutorials, get their questions answered promptly, and become comfortable with the laser,” Stevens states.

Some offer customers cheat sheets with the speed and power necessary to engrave on different substrates. “For instance, wood is typically medium speed and high power because the wood absorbs laser energy so you have to slow the machine down, unless you have a 120 watt and then you can run full speed,” Dean says. “For lasers that are 50 watt or 60 watt, you have to slow the laser down so that you get enough depth into the wood.”

But if a laser engraver goes too slowly over wood, it can leave a charred mark,

notes Voigt. It also depends on the type of wood being cut or engraved. Some woods are more porous than others and will leave grains behind when engraving. Hardwoods are always a good choice.

Engraving plastics is different. “Vaporizing the cap sheet on engraver’s plastic can be done at high speed. Those are the two primary variables that control the laser: speed and power,” Dean states.

For glass, the laser should be on medium speed and high power but, says Dean, you might want to adjust the artwork to 70% or 80% fill as opposed to being 100% because when the laser hits the glass, it chips the engraving surface. If you reduce the fill, you aren’t applying as much heat to the glass overall and it doesn’t chip as much.

trotec / SETTING NEW STANDARDS

troteclaser.com
engraving-supplies.com

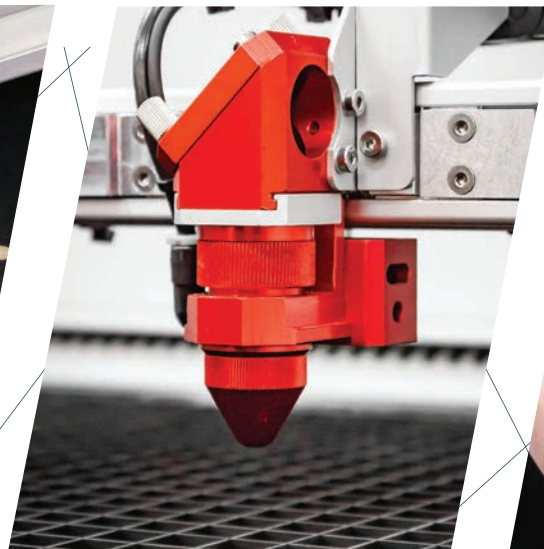
Trotec Laser USA
Trotec Laser USA



Speed



Quality



Reliability



If you want to cut materials or do more advanced techniques, such as 3D engraving, it is beneficial to have a laser with more power. (Image courtesy Kern Laser Systems)

If you want to use a CO₂ laser on metal, you need to first apply a metal-marking spray onto it. When the laser hits the coated surface, it creates a thermochemical reaction that bonds the spray to the metal, producing a permanent black mark, says Dean.

Other metals, like anodized aluminum, produce a nice white contrast when engraving without applying a metal-marking spray first, Dean adds. Powder-coated metals can also be lasered. The laser vaporizes the paint and exposes the shiny subsurface beneath it. Most colored stainless steel mugs are powder coated.

Leather is a great product for both cutting and engraving. Shops can laser engrave a logo onto leather for keychains or luggage tags and then cut them out. Set your laser to high speed, low power and it will produce a nice, charred mark on the leather which creates a high contrast, Dean states.

Stone is yet another popular substrate for engraving. Granite and marble are used for headstones and monuments. Typically, the names of the deceased will be sandcarved onto the stone and then a photo or saying will be laser engraved onto it. It is much easier to engrave a picture or design with a laser than to develop a stencil for sandcarving, believes Smallwood. A 50- to 100-watt laser can engrave on granite and marble.

Another big industry for engraving is bricks. Hospitals, schools, and even sports complexes sell engraved bricks to help raise funds for projects. In the past, those items were only sandcarved then painted. With a laser engraver, the intense heat turns the engraved area black, so the engraved area doesn't need to be painted or touched up down the road. "Bricks are a huge money-maker in the business," notes Smallwood.

On the bigger side of things, Kern's lasers are used for many industrial purposes, like large point-of-purchase displays, shower and bathroom doors, lighting, and aerospace. Much of it is laser engraving UPC bar codes or parts numbers on ID tags, tools, and control panels.

It's clear each substrate has its own set of

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guidelines. "It is important to use the appropriate laser parameters for each material to achieve the best result," adds Stevens. "For example, engraving paper usually requires less power than engraving wood or engraver's plastic, and when engraving acrylic, you typically achieve the most uniform results when using lower power. It's also important to note that going too slow could result in a fire depending on the material, which is why using the appropriate settings is so important."

LASER ENGRAVING IMPROVEMENTS

Over the past few years, laser systems have seen a steady increase in size and the speeds of both engraving and cutting. "More user-friendly, web-based operational software has begun to offer more control and ease of use, improved material settings, and features like cameras and vision systems have expanded the ability and diversity of markets for laser engraving," says Stevens.

Laser systems started out small in size with little to no customizable features or options. "Most were difficult to use, slow, required skilled maintenance, and were extremely expensive," Stevens adds. Over the years, new accessories have been developed, and the sizes and wattages of the lasers have increased. Laser engravers today are much easier to maintain and can reach speeds 20 times faster than the original laser engravers that came on the market.

These are all capabilities to consider when deciding what to purchase. "Laser power is going to determine speed and processing capabilities. For basic and straightforward engraving applications, a lower wattage may be sufficient, but if you want to cut materials or do more advanced techniques, such as 3D engraving, it will be more beneficial to have a laser with more power," Stevens finishes. **GP**

PAULA AVEN GLADYCH is a freelance writer based in Denver, Colorado. She can be reached at pgladych@gmail.com.

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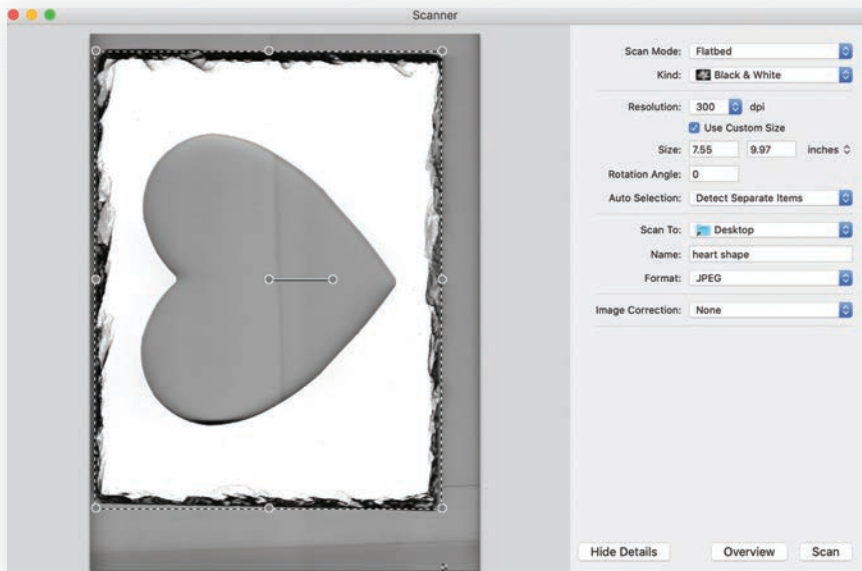


SUBLIMATION SLATE 101

LEARN HOW TO CREATE A TEMPLATE AND SUBLIMATE THIS STUNNING SUBSTRATE

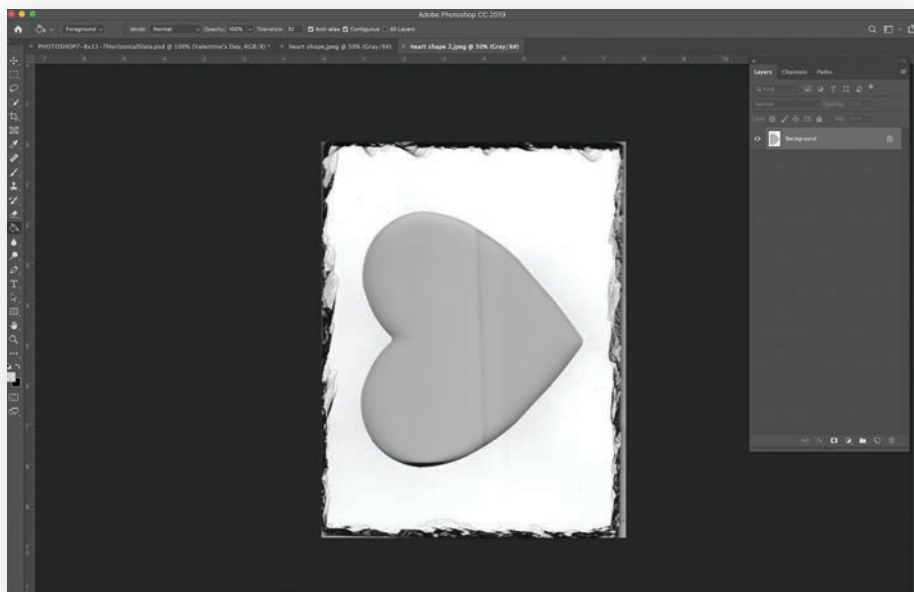
Sublimated slate can be one of the most stunning and profitable substrates available in our market today. It can also be one of the most challenging and intimidating substrates for people to master. With the right tools, sublimating slate can be easier than you think.

Slate rock has been used for decades for many uses such as roofing, flooring, walls, and wall art; it also demands a steep price. Though the cost is high, the benefits of using slate in one's home, such as its durability and the increase in real estate value, makes it desirable to purchase. To have the opportunity to offer a personalized sublimation slate that looks and feels like a high-end piece at an affordable price and is still profitable is a win for all. Because slate rock has unique properties in its appearance and fractured chipped edges, it will add beauty and give a memorable lasting gift for anyone's home.



Step two in designing a template. (All images courtesy Cheryl Kuchek)

PRO TIP: If you don't have a scanner available and have an iPhone, you can go to Notes, and at the bottom choose the camera icon, which gives you an option to Scan Documents. As you click on Scan, it adds handles to let you move and capture only the substrate without the background. For best results, place the substrate on a solid piece of white paper when scanning.



Step three in the template design.

PRICING AND PROFITABILITY

Sublimation can be a rewarding and profitable business. When it comes to pricing and profitability, an essential factor is not underestimating the time it takes to produce your substrate and then charge accordingly. What you value will be conveyed to the customer in how you price your goods for sale.

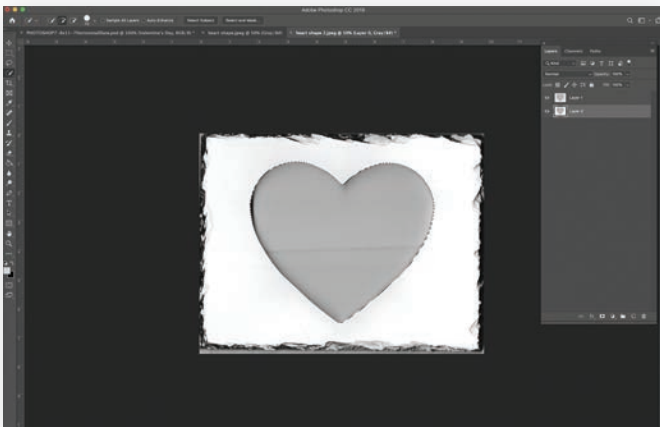
DESIGN CHALLENGES

One of the challenges I have seen people face with sublimation is not having a template to use when creating a design for their substrate. They feel stuck when trying to design without one.

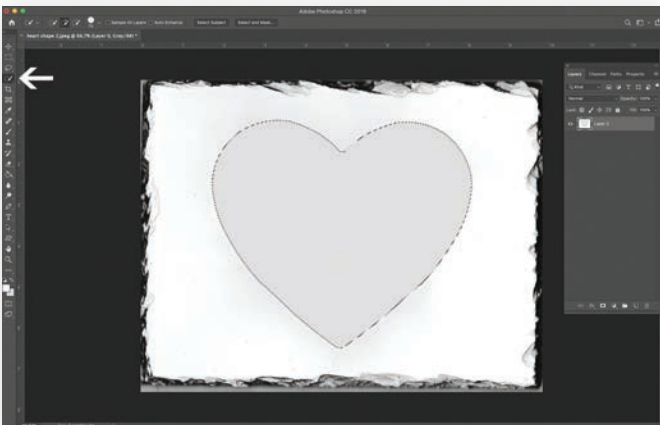
For substrates that don't have a template available, if it is a straightforward shape like a simple square or rectangle, you measure the substrate and add a quarter inch for your bleed. But the ones with an odd shape, scanning it into one's computer and then using the Quick Select tool in Photoshop allows one to quickly create a template to use for designing.

Creating a Template

For this demonstration, I will use a heart-shape slate frame from Condé Systems. There isn't a template available on their site, so I will use the scanning method. It is helpful to know your dimensions to ensure that your template is correct. With this example, the rectangle shape is 9.8" X 7 1/2".



Template design step four.



Step five in the template design.



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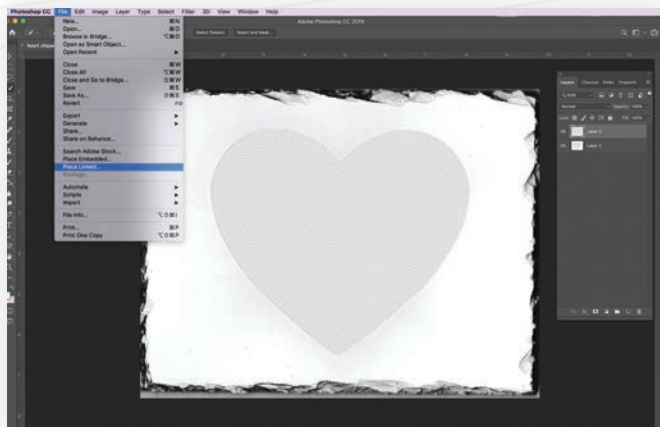
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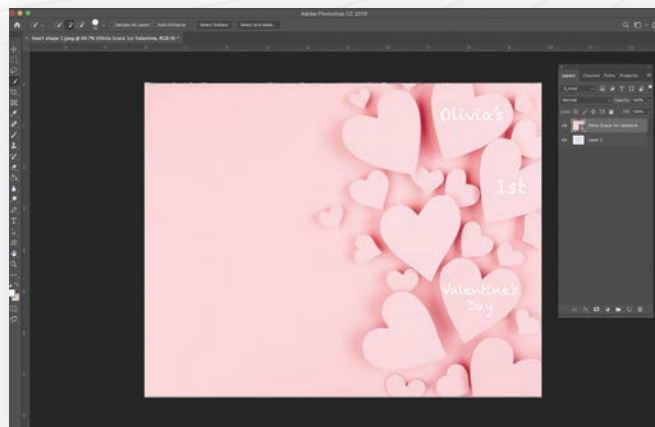
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SUBLIMATION BASICS AND BEYOND



Step six when creating and using a template.



Previewing the design.



The materials needed to sublimate the slate.

Step One: Lay your substrate flat down on the glass. Note: If the substrate is too bulky for the lid to come down flat, grab some heavy white cardboard or several sheets of paper to cover the whole scanning area completely. If light gets in while scanning, it will cause your image to be dark.

Step Two: In your scanner window, be sure to name the file and save it where you have easy access to it.

Step Three: Open up Photoshop and bring in your file. Go to File>Open, then click on your file.

Step Four: Go up to Images, then rotate the image clockwise.

Step Five: Choose the Quick Selection Tool. Click on the heart, be sure the heart has the marching ants, and press the delete key. You now have a workable template.

Step Six: Choose New Layer from the Layers panel menu, then click OK. Note: The new layer is automatically selected and appears in the panel above the last selected layer. On the separate layer, go to File, then Place Linked to bring in your file.

Step seven: To preview how your design will look, follow these steps:

Create a clipping mask

- In the Layers panel, select the top layer.
- Hold down Alt (Option in Mac OS), position the pointer over the line dividing two layers in the Layers panel (the pointer changes to two overlapping circles), and then click on the dividing line to create the clipping mask.



Step one of the sublimation process: secure with heat tape.

HOW TO SUBLIMATE SLATE

Items Needed:

- Blank slate
- Printed image
- Heat tape
- Nomex felt pad
- Protective paper (two sheets)
- Green rubber pad
- Heat gloves

Step One: Get the blank slate and place the coated side on top of the printed image. You can fold the excess paper edges to the back of the slate. Secure the paper alignment with heat tape.

Tip: When using the heat tape to secure the transfer paper to the substrate, be sure to use an adequate amount of tape. Sometimes, when the tape heats up, it loosens off the substrate, shifts the transfer, and causes ghosting.

Step Two: To prepare the heat press, place the Nomex felt pad on the surface and adjust for thickness and pressure. The best practice is to do a cold run with the Nomex pad, slate, and green pad before turning on the heat press. Use light to medium pressure.

Step Three: Next, place a sheet of protective paper on top of the Nomex felt pad.

Step Four: Place the slate (with the backside facing down) on top of the protective paper. Make sure it's at the center.

Step Five: Place another sheet of protective paper on top of the slate with the image.



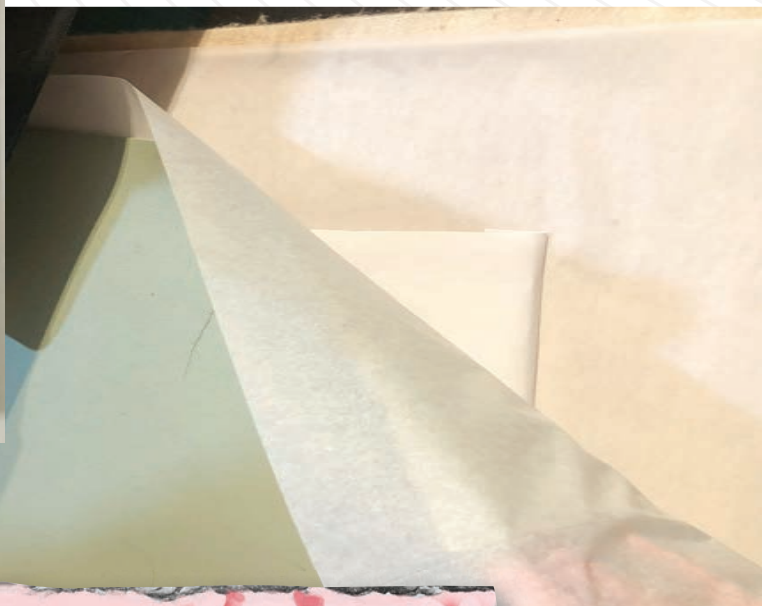
Step Six: Cover the top with the green rubber pad. The green pad will help get your printed image into the chipped edges.

Step Seven: Set the heat press temperature at 400 F and time for 8 minutes.

Note: Different size slates require different times to sublimate, so be sure to check with the vendor you purchased your slate from.

Step Eight: Adjust the knob if needed to apply light to medium pressure upon locking in the heat press.

Step Nine: When the time is up, wear heat gloves to remove the layers and the printed slate. Remove the transfer to reveal your finished product.



Above: Steps two through six outline how to layer everything on the press. **Left:** The finished slate project.

CONCLUSION

When trying any new substrate for the first time, it is a good practice to have substrates that you can test first before offering them

for sale. That is especially true for substrates that can be a little more challenging, like sublimatable slate. If you haven't sublimated slate before, give it a try—you will be in awe with the finished product. **GP**

CHERYL KUCHEK is the owner of Just my Imagination DeZigns Inc. and has been active in the personalization industry for over 10 years. Cheryl has a passion for the industry and a love for helping people; she was the first to start a Facebook group to do just that. Sublimation for Beginners and Beyond is a resource to help those first starting out and those who are advanced. Cheryl can be reached at cheryl@justmyimaginationdezigns.com.



HOW TO FIND YOUR “WHY”

A clear purpose in your business that all the stakeholders are aware of enables you to focus your efforts on what matters most. It can compel you and your team to take risks and push forward regardless of the odds or obstacles. It is the

reason you started your business that goes deeper than just for the money.

It is what that money is for, what you value, and what contribution you make to others. Many times we fall into a business and don't really think through the pur-

pose or “why.” Or sometimes we might have something there, but it has either been forgotten or needs to be evaluated or reimagined.

Having a clear purpose can do a lot for your business and you—it is the central



piece of any business. I have found that if you have a clear “why,” not only does it motivate you, it gives your potential customers a connection point, creating more profitable and loyal customers. Having a clear purpose and mission statement also makes

the decision-making process much easier as you have one statement to weigh your decisions against. This to me is one of the most important things to work on and discover.

10 STARTING QUESTIONS

We know how important having a clear purpose is to our future business success; now it is time to determine how we find it. Einstein once said, “If I had an hour to solve a problem and my life depended on it, I would use the first 55 minutes determining the proper question to ask, for once I know the proper question, I could solve the problem in less than five minutes.”

The first place to start is asking ourselves and our stakeholders, team members, and partners questions that can lead us to our “why.” It is in the patterns of the answers to these questions that your true purpose is hidden.

Let me share with you my 10 favorite questions to ask and answer. After that, I’ll give you some examples of my answers to the questions and how I pulled my “why” out of the answers.

- 1) What task or project do I/we lose track of time when involved with it?
- 2) What traits about other businesses really rub me/us the wrong way?
- 3) What do I/we absolutely hate about or hate doing in the business?
- 4) What do people come to me/us for advice or guidance about?
- 5) If I/we knew the business couldn’t fail, I/we would be doing ... ?
- 6) What would I/we like to change about or contribute to the world?
- 7) If I/we had more time to hone my/our skills, I/we would be really good at ... ?
- 8) My/our biggest fear of being successful is ... ?
- 9) What do I/we want to have less of in the business?

- 10) If I/we had \$1 billion dollars in the bank, I/we would ... ?

With those 10 questions, you have a great start to finding your “why” or the purpose of your business to exist. As Einstein said, though, finding the *right* questions to ask is the most important part of the process.

Don’t stop here. What other questions come up in your head? Think about the extremes of your business and what questions and thoughts are associated with them. For example, when you had a big setback, did you ask yourself why you keep doing this to yourself? What was the answer? Or maybe right after a huge success, did you ask why this is so exciting to you? Keep asking questions, working on the answers to those questions, and a pattern will start to emerge.

STANDOUT ANSWERS

From the above 10 questions, once I had the answers, three of them stood out for me.

What task or project do I lose track of time when I’m involved with it?

Answer: I find myself getting caught up for hours creating tools and templates that can be used in a business, from spreadsheets to templates to how-to guides. I also love spending time talking about those tools, sharing those tools, and fulfilling one of my core values: significance.

What traits about other businesses really rub me the wrong way?

Answer: I struggle with the people and businesses who are needy, lazy, blameless, irresponsible, unmotivated, and righteous. They tend to want to blame everything and everyone else yet find the need to share with everyone else. I, instead, am interested in working with businesses that show the traits of being independent, industrious, ac-

THE RISING TIDE OF BUSINESS





countable, resourceful, and seeking to improve their business and themselves.

My biggest fear of being successful is ... ?

Answer: The fear of not being able to find solutions for everyone to be able to make a significant enough impact on the right people and businesses. From this fear, I realized that what I was actually afraid of was not being able to deliver results, like “guarantee you \$100,000 in sales.” Or worse, I feared sounding like the righteous traits that I didn’t like where I told you what was and what was not a success.

In the answers to these three questions, I found my personal mission statement, and along with my partner, we adopted it as the mission of our company: “To provide resources that empower business owners to achieve their idea of success.” Here is how:

To provide resources—This came from what we lose track of time doing. The spreadsheets, templates, and training are all resources that when in the hands of people who value growth, will take and run with when properly supported.

Empower business owners—This came from the traits that I value, which I discovered were the opposite of the traits that really rub me the wrong way. Empower or being empowered to us encompassed all of the positive traits we look for in business owners to work with.

To achieve their idea of success—This came from my biggest fear. I was fearful of sounding righteous and making people feel uncomfortable if their value of success doesn’t match up to what we value as success.

Now mind you, this didn’t happen after a quick sit-down planning session. Our mission evolved out of asking question after question, getting honest about what we valued and opposed, and trying a lot of “whys” on for size.

In the end, though, it comes down to a very simple formula: to (the contribution), so that (the impact). For us, it is: to—pro-

vide resources, so that—empower business owners to their idea of success.

SIMPLE AND CLEAR

Finally, your “why” statement should be simple and clear. Can anyone read it, see it, or hear it and immediately make a connection and understand basically what you do? It also needs to be actionable. It needs to help you with the decision-making process and speak to what you do. It also must be expressed in affirmative language that resonates with you.

So even if your mission was similar to mine, maybe empower doesn’t speak to you as it does me. We actually spent a lot of time using www.powerthesaurus.org to find the right language.

Affirmative language is also important as this is a connection point—you attract what you put out there. So, if you say we want less of something, it will have the opposite effect. Put out there the positive contribution or alternative to the negative.

Lastly, it needs to focus on how you’ll contribute to others. Again, this is a connection point to bring all the stakeholders together. In sharing the contribution with others, our human nature kicks in and will bring more of what you want to the table by you giving them more of what they want. **GP**

AARON MONTGOMERY is the co-founder of Our-SuccessGroup.com. Their goal is to help over 1,000 businesses in 2020 reach their idea of success through training, community, and accountability. Aaron has over 25 years of experience with personalized products and small business development. You can also find Aaron co-hosting the podcast 2 Regular Guys Podcast (www.2regularguys.com). He has his own podcast channel and weekly live videos called Small Business Saturdays Series. New episodes are released weekly at smallbusiness-saturdayspodcast.com. You can find out more about Aaron at www.aaronmontgomery.info.

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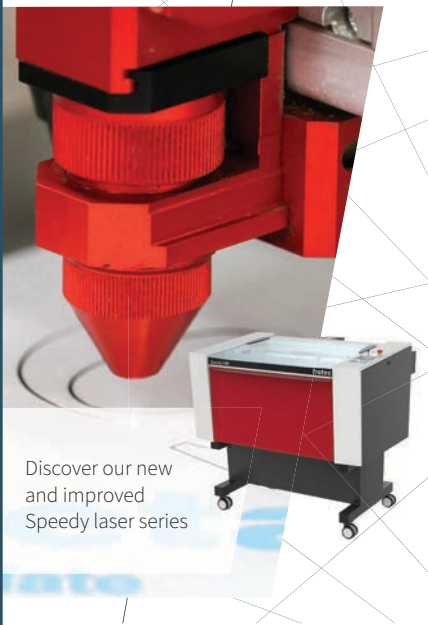


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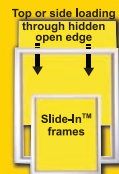
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GROWING YOUR NETWORK

continued from page 15

Most businesspeople agree that networking for new relationships is one of the most important business skills, and so they do everything they can to invest in these connections.

- Network wisely. The experts approach networking as a way to build relationships, not to sell something. They are always ready to connect people to other people when they can and when it's appropriate.
- Start small. Choose your connections wisely. Unlike adding multiple friends to one's social media network, additions to one's professional network should be well thought out.
- Opportunity is all around. Look for "it's a small world" kinds of connections with others. Find ways to fully engage with those with whom you want to connect.
- Give more than you expect to get. Growing a professional network takes a "what can I do for you?" approach. There is always someone out there who is constantly asking for help but is never giving back—be the one that gives back with generosity.
- Be protective of your professional friends. Good networkers protect their contacts, and they know when to abstain from passing on their connections.

Building professional relationships is an important aspect of building a business. Networking provides the connections. Follow up and dedicate to helping others provide the bridge to building a strong professional network. **GP**

DONNA M. GRAY is the co-owner and president of Total Awards & Promotions/DonorAppreciation.com in Madison, Wisconsin. She has authored two books and for the past 20 years wrote a monthly column for two trade publications, and writes a semi-monthly blog for a business magazine. Donna is also a charter member of the Recognition Roundtable.

EMBROIDERED PATCHES

continued from page 19

THE DIGITIZING

You'll need stitch files made for patch creation. Though the specifics are outside the realm of this article, it's not difficult to achieve. If you do the digitizing, run all decoration or central material in the design before edging with any of the methods in which patches are stitched in a single step. This prevents premature tear-out by reducing the amount of stress placed on the substrate once the edge becomes perforated with the final satin stitching.

Most outsource digitizers should be able to create the necessary files and/or cut lines for your cutter should you be pre-cutting fabrics blanks. Just let them know the method you'll use to create the patches. You may even be able to have them use specialty stitch types to create a decorated border that more closely resembles overlock stitching or that adds a textural detail that sets it apart from a standard satin-stitched edge.

Failing that, you can always look to stock design companies; many sell patch borders in standard sizes and shapes that you can use to make any appropriately sized logo into a patch with some simple resequencing and compositing of stitch files.

No matter which method of production you choose, small-run patches can be a fantastic answer to decorating the occasional hard-to-hoop or hard-to-stitch item through the use of adhesive applications, let alone their current popularity for their compelling retro style. If you embroider, there's no reason not to try patch making. **GP**

ERICH CAMPBELL has more than 18 years' experience as an award-winning digitizer, eCommerce manager, and industry educator. He empowers decorators to do their best work and achieve a greater success. A current educator and long-time contributor to industry trade publications, Erich takes every opportunity to provide value to the industry.

THE DIGITAL EYE

continued from page 55

the Printing Marks area. Check the Corner Crop Marks and Registration Marks boxes (Figure 7). Check the Labels box too so that the film will be labeled with the appropriate color. Load the transparency film into your printer and press print.

Lay each transparency film on four separate screens that have been coated with emulsion and expose them to ultraviolet light. When the emulsion has been polymerized, thoroughly rinse the uncured emulsion away.

Printing

You are now ready to print using the four process colors. Take care to perfectly align the registration marks on each screen. Print the yellow screen first then the magenta, cyan, and finally black.

IN THE WORLD

Screen printing is possibly the most versatile of all printing processes, being used to print on almost any substrate. It is widely used today to create large-run graphics including posters and point of purchase stands.

Since basic screen printing materials are inexpensive and easily acquired, screen printing has found its way into subcultural settings. The DIY look of screen prints has become a universal aesthetic seen on all sorts of posters, CD covers, T-shirts, in artwork, and pretty much everywhere. Screen printing also lends itself well to printing on canvas. Pop artists such as Andy Warhol, Roy Lichtenstein, and Robert Rauschenberg have used screen printing as an expression of creativity and artistic vision (Figure 8). **GP**

STEPHEN ROMANIELLO is an artist and educator, teaching digital art at Pima Community College in Tucson, Arizona, for over 29 years. He is a certified instructor in Adobe Photoshop and the author of several books on the creative use of digital graphics software. Steve is the founder of GlobalEye Systems, a company that offers training and consulting in digital graphics software and creative imaging.

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