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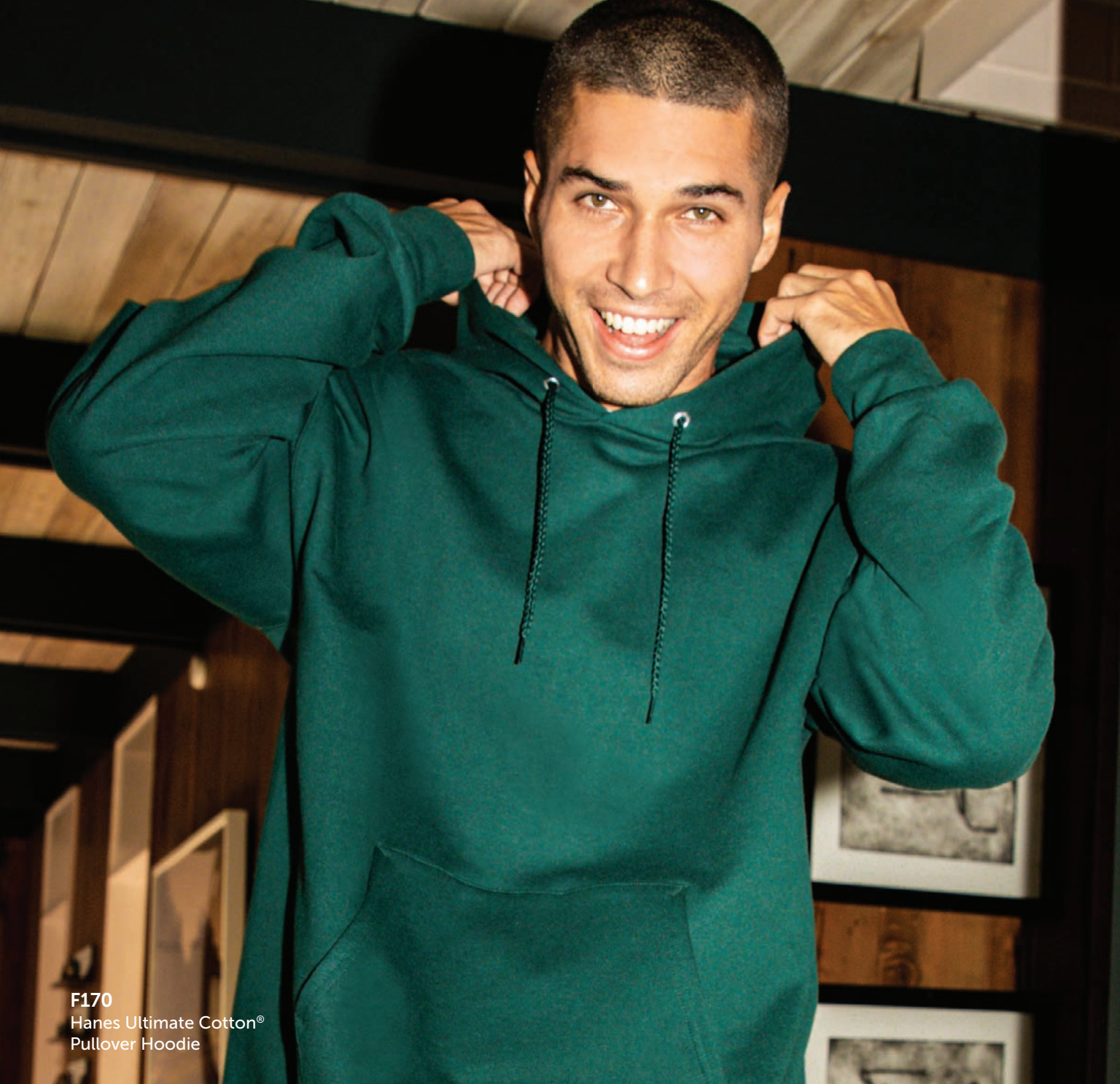
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CHARITY JACKSON
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Featured in this month’s issue is our special section, **The LookBook**, on [page 33!](#)

The LookBook is a sponsored section that puts the spotlight on the latest apparel trends in the industry.



AWARDS & CUSTOMIZATION

APPAREL DECORATING

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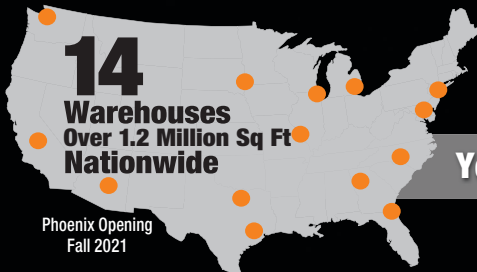


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ON OUR COVER

Many of today's uniform offerings have a more relaxed feel that gives workers the mobility they need to get their jobs done, page 22. (Image courtesy Edwards Garment)



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IT'S TIME TO BE SOCIAL

There's a plaque in our office kitchen that says, "He who has a thing to sell and goes and whispers in a well, is not so apt to get the dollars, as he who climbs a tree and hollers." If we translate this good old folksy saying into today's vernacular, it would probably sound something like, "She who prints a perfect sign, may end up doing mighty fine, but she'll probably end up pretty bitter, as her competition thrives on Twitter."

OK, groan-inducing lame poetry aside, the point is that if you aren't putting your work up on social media sites, you are missing out on a free way to get your name and work into the public eye. It's possible you've been doing it for years, in which case there are always ways to refine and tweak your methods. There's no reason to be shy about posting. Unless you decide to go off the rails with your content, a focused social media strategy can be nothing but beneficial. And as much as I hate to say it, it's probably expected from you because of the legitimacy it lends to younger generations of potential customers.

Here are some things to remember about your social media presence:

- You don't need a marketing degree to succeed. Today's social media platforms are simple to use, and you can achieve much by allocating just a few minutes a day to the task.
- Treat every piece of content like an investment. Posting may be fast and easy but can still look shoddy if you aren't focused. It's OK to refresh older posts.
- Be patient. Audiences don't appear overnight. And remember, your business is something people search for when needed, not a teen pop star that people will just follow. Picture the sense of confidence in your abilities a potential client will feel when they see your history of work and pride laid out on the screen. Sometimes you may feel you're just tossing content out into a void, but that's not the case.
- Save the rants for the bar or the burner accounts. Your company account is for your current and future clients. Tackle controversial topics at your own risk.
- Hype everything up. Used a new technique? Share it. First work for a new client? New equipment? Let's see it. Find ways to show your world to your clients. **GP**

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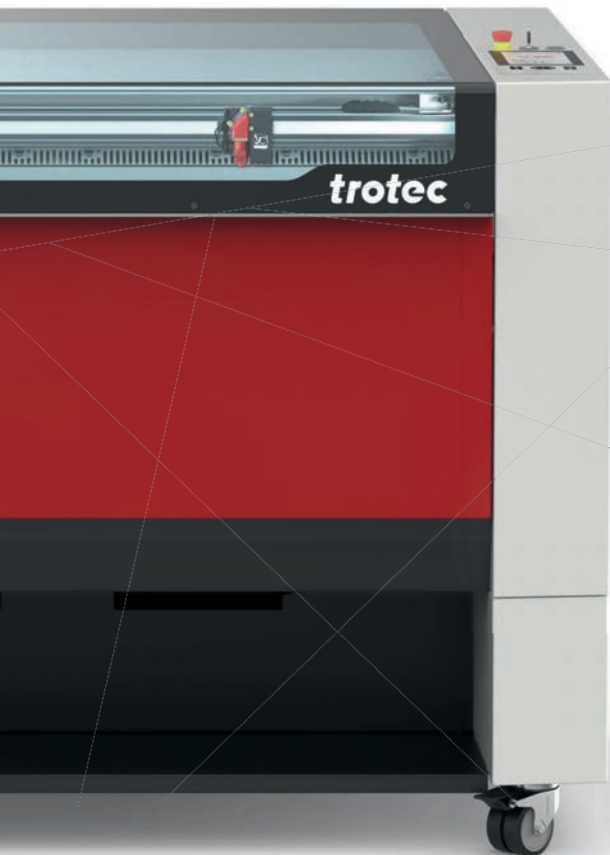
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| SETTING NEW STANDARDS



MIS-COMMUNICATIN’

Though it was a long time ago, I still remember my surprise and shock when my two-person shop crew so badly misunderstood the simplest of instructions, forcing a race to the finish to mitigate the damage.

I had stayed up late to complete a large, free-standing sign advertising a local home mortgage lender. It was to stand proudly in our town’s convention center during the home and garden show. The sign was large but lightweight, made of thin plywood and a little structural lumber and would be used just this one time. But it looked good, and our client would be happy.

We did not have a shop trailer available at the time, and the sign was too large to lay down in my old narrow bed pickup truck. It wasn’t going far, so we just set it up sideways in the bed of the truck with the tailgate down — sideways and parallel with the wind of the moving vehicle. There was no other wind.

Instead of us figuring out ways to tie it down, Mark said he would ride the two miles or so over to the show in the back of the truck and could hold it if Mike went really slow. It was silly for me not to contest Mark’s plan, but all I did was turn to the driver and say, “If Mark is going to hold it, just don’t go any faster than about four miles an hour. It’s a short drive anyway, so there’s no hurry.”

Mike nodded and got in the cab while Mark took his place in the bed of the truck. They disappeared down the road, and I went straight back to work.

I knew we were in trouble when just a few minutes later, Mark came busting in the door exclaiming, “I tried to hold it, Mr. Rick, I really did! I tried really hard, but at a point, I just had to let go. It was either it or me!”

A frustrated Mike came in next, and I turned to get his take on things. His explanation put the blame purely on me, “Rick, I did exactly what you said and didn’t drive a mile over forty.”

Goodness! Talk about not getting the instructions right!

No doubt about it, miscommunication is an age-old human problem, and a lot of what sign makers do is aimed at trying to solve that problem with signs. But, I have to admit, I am a lot better at producing signs that communicate and give instruc-



tions than I am at reading those aimed at me. I proved that failing of mine in a particularly hazardous way a while back at a hilltop park in Palos Verde, California, when I stepped forward into an unmaintained area of rocks and grass to get a better cell phone shot of the ocean in the distance.

My wife quipped, “Hey bud, you might want to read that little pole sign you just passed by; you know the one with the graphic of the snake and the text reading, ‘Rattlesnake Habitat.’” Man! Leave it to Californians to adjoin a city park with a pit viper nature area.

That might have been a bit worse than when, in a rush of nature’s urgency, I made

a mad dash into a restroom at the Vicksburg National Military Park and Museum and took a seat. It wasn’t long before several other clients made their way to the restrooms.

Shortly I realized that all those who made their way into the facility spoke with obviously female voices. Brother, I didn’t know whether to lift my size 11 cowboy boots up off the floor or leave them on the ground to show my location was occupied. Miraculously I extended my stay until they left, then I made a mad dash outside and past the other door that indicated it was for men — and clueless sign guys.

Those instances were all some time ago, and I think I’ve gotten a little better over time. But, I have not declared victory just yet. Last week, I was hanging the last of several information and direction signs from the ceiling of a large medical facility. A polite but plain-speaking patient walked past me in the hallway and said, “You might want to flip that one around, bud, as cardiology, where I just came from, is behind us, not in front of us.”

Well, at least, like my wife, he called me “bud,” and not “dummy,” as I’m sure the second moniker fits me even better, at least on some days here, “In the Trenches.” I hope you’re doing better than I am on any number of fronts, and I hope you have a really 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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What You Can Make from Wood

ONE OF THE MOST VERSATILE SUBSTRATES TO LASER ENGRAVE

BY BOB HAGEL



Wood has always been my favorite material to laser. It's got a natural beauty, a timeless look, and many uses in the laser world. It mixes well with other materials, especially as a base to apply metal, acrylic, and even paper-based products.

Industry suppliers sell sheet wood products of many wood species. The sheets may be solid wood or laminated to a less expensive species or a more solid composite board for flatness and structural integrity.

CUTTING WOOD SHEETS WITH YOUR LASER

I prefer solid wood sheets for most projects, as I find it cuts better and separates well — especially when you have to weed out small parts. There is a limit to how small a piece you can cut out without burning it.

The thinner the wood, the easier it is to cut out small pieces (to an extent). If you can use lower power (lower heat) or faster speeds, as you can with thinner sheets, you will burn the wood less and have more success.

Wood sheet material comes in 1/8", 3/16", 1/4", and even thicker from some sources. You may also find 1/16" and even thinner material. Less than 1/16" is usually



A shadow box displaying CAL FIRE graphics for a fire station reopening. (All images courtesy Bob Hagel)

a peel-and-stick wood or simulated wood look. You may want to use a wood-simulated acrylic sheet for certain purposes. The structure of the acrylic sheets holds up very well and can even be heated to bend. I found 1/8" and 3/16" material to be efficient for many projects where structural integrity was less critical.

THICK WOOD PRODUCTS

Thicker wood such as that used for plaques, boxes, and other products will

not likely be a material you want to laser cut. Thicker woods laser engrave very well. Just remember, the wood products you buy from suppliers or most other sources are finished wood, generally with a clear coat or gloss paint color. This makes clean up after lasering much easier. Ensure the finish is thick and hard, so cleaning the wood is easy and does not remove the shine, which would give it an uneven look. Products I bought from within our industry never resulted in poor cleaning. Some other



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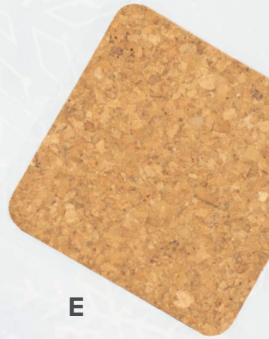
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Left: A new twist on an old light switch product. This idea works for kids' rooms, family, and media rooms, and even business lobbies and training rooms. **Below:** 3D layering requires planning and may take some experimentation to design it just how you want it.





LOOKING FOR ENGRAVING OPPORTUNITIES IN THE EVENTS AND RACE INDUSTRY? BRADEN TODD, OWNER OF GLASSMITH2, HIGHLIGHTS THE POPULARITY OF FINISHER MEDALS: <http://gpro.link/finishermedals>.

product sources may provide a challenge. Test these products before making a large purchase.

Using sheet wood materials and various glues, I designed and made numerous products. I used several woodworkers for making products from thicker woods and more complex or refined finished wood products. There are lots of woodworkers who will take on projects as a second job. You will also find many retired people doing woodworking as a hobby or wanting to make some extra money. Test the skills of any candidates you are considering. When you find one or two good ones, hold on to them.

HOME DECOR PRODUCTS

COVID-19 brought home decor to the attention of everyone stuck at home. It brought the desire to add and change decor and motivated the creative to design and make their own.

Many have purchased small lasers for their homes and build unique products for themselves, their friends, and family, as well as a small side business.

Themed-based products will bring a following to your creative product line. Some popular themes I've seen are related to the outdoors. Mountains, the beach, kayaking, RVing, camping, and hiking are a few. Select a graphic or two that helps tell the story. Short, special sayings work well to complement the graphic. Some may be customized with family names. Make sure the product design is well-balanced in the end. Don't over-design and try to put too much on display. Less tells the story quicker and without confusion.

Some customizers have created products around their experiences in firefighting, law enforcement, and the military. Sports is also a big theme. Classic movies also have their followers and can make a great theme as well. Just remember that many logos and graphics fall under copyright. Using these graphics without permission or a license can result in an expensive lawsuit.

Wood is often used as a base for mounting additional wood cut-outs or even acrylic, metal, and leather. The more layers, the higher the price. When designing wall pieces that are layered, you have to think in 3D. Individual pieces overlap and must be attached or glued to other pieces. They must create a stable structure. If you are selling them over the internet, they need to be shipped. Thoroughly think through packaging and consider the time it takes — it can be a significant part of the cost of making the product. Packing materials also need to be thought through, and the packing process must be an efficient one.

CUSTOM PLAQUES

Even with the hundreds of industry-supplied plaque designs and sizes, I had many requests each year for something I could not locate. Working relationships with woodworkers allowed me to fulfill many requests and some significant size orders over the years. I kept wood samples on hand with several edge designs. A good woodworker will have a high-quality router with several types of edge tools. Some plaque

manufacturers also build custom plaque.

I had requests that included logo shapes designed into the shape of the plaque. Unique-sized or shaped plaques for perpetuals were a popular request. Plaques are also a cost-effective way for a customer to post an interior or even an exterior sign. You can even take a standard product such as a plaque and create new uses for it. Display these uses on your website or in your showroom. This is a great way to display your ability to provide customized products even if the customer doesn't need that specific design. You might just fire up your customers' creativity.

TEMPLATES AND HOLDERS

Sheet wood is also beneficial to make templates to hold products in place for engraving. Large orders that require lasering of medals, keychains, pens, and other products that might be used as customer gifts or giveaways (promotional products) can become more efficient with a laser table template. Templates offer a quick and easy placement of the products to be engraved. I also used wood to design and produce

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Top: A custom standing award I designed for a company chili cook-off — made by my woodworker partnership. **Above:** To be promoted to a Navy chief requires making a box.

holders for other odd-shaped products like pocketknives. I created a holder for glassware when masking them for sand etching. Water bottles are another product that must be held flat. I had several wood holders made for a variety of bottle brands and models.

SHADOW BOXES AND DISPLAYS

Team up with a person who designs and decorates shadow boxes. They are popular to display sports collectibles, retirements, military, and first responder awards. They often include important graphics (patches and coins) for the receiver. I made many unique cover shapes cut from sheet stock and many with lasered graphics. A few examples include fire department patch graphics for the reopening of a fire station, a badge graphic as a cover for a shadow box for military police, and a unique cover of an airport control tower for a retiring military flight controller. I asked for a photo of the entire tower from a straight-on view. I traced the tower's outline and added some simple graphics and lines. The customer was thrilled when the retiring specialist opened up his retirement gift and was moved to tears. That made the effort we put into the project worth every minute.

MILITARY, POLICE, AND FIRE PERSONNEL

Some professions seem to take to wood products more than others. The military, firefighters, and police appreciate natural materials. They also love their emblems related to their jobs (MOS - military occupational specialties) and graphics for their units. Obtaining quality graphics from these customers can be a challenge. I used every trick I could come up with to find ways to get these graphics myself. The quality of the graphics equals the quality you can laser. I put some of my own time into redrawing graphics for important projects.

MIXING MATERIALS

I liked to mix materials I could cut with the laser. This allowed me much more control over the creativity I could have over shapes. Sheet wood, sheet acrylics, leather, and the newer leatherettes are all great to work with. This provided me with earthy colors and a full set of bright colors, textures, and metallics to work with. Besides finding a great woodworker to put on your team, creating a relationship with a leathersmith is worthwhile. The leathersmith often needs leather engraved. I would use leather shapes worked with leatherworking tools to provide a unique look and capability few shops offered.

BE CREATIVE

Everyone has, at the very least, some creativity around things they are interested in. You might just have a spouse, family member, or friend that has a creative side that enjoys a challenge and is willing to help. Some of the best creative ideas come from replacing an existing product with something with a new twist. That might be

a new look, new materials, or different use. For example, I created decorative light switch plate designs from sheet wood with children's, sports, and logoed themes for family rooms, corporate training rooms, and lobbies.

Pinterest, Facebook, Instagram, and other social media platforms are excellent sources for ideas to get your creative juices flowing. Creating your line of products can be very satisfying. You can use them to win ongoing clients for their everyday business. Once they see your capabilities and willingness to create products specifically for them, there is no place else for them to go. They are customers for life. **GP**

BOB HAGEL recently retired after owning Eagle's Mark Awards & Signs for 18 years in Southern California. While owning the business, he offered a full line of personalized products using laser engraving, sandcarving, and full-color UV direct print on products. Today, he consults on starting and expanding personalized businesses and on improving production efficiency and quality. He can be reached at rjhagel@verizon.net.



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ESTABLISH A UNIFIED LOOK AND BRAND

BY KRISTINE SHREVE



Think about what a corporate customer wants when they add decoration to their workwear or uniforms. First, they're looking to add branding, their logo, or slogan on the items worn by their employees to establish a unified look and feel for the business. Having the employees wear decorated workwear also turns them into walking billboards — moving, breathing advertisements for the business. Decorated workwear can often bring a sense of unity and teamwork to the employees. They're all wearing the same thing and are easily identified as part of the group. Logowear can offer various benefits to the business that buys it, and it can be a very lucrative profit center for the company that sells it.

These days, there are many options for decorated workwear, but one of the most classic is embroidery. Embroidery has been called the Cadillac of decoration techniques and is widely considered to provide a classic and sophisticated look. Businesses striving to maintain a prosperous and upscale image may select direct embroidery for their logoed items. Direct embroidery is also typical on lab coats and chef coats, and restaurants and hospitals may be ideal clients. A lot of corporate embroidery is fairly simple, a left chest company or employee name in one color, although the material on which the name is placed can be a little more challenging. Polo shirts with loose weave have long been a corporate workwear staple, and lately, some businesses have been attracted to performancewear, which presents its own embroidery challenges. With

any direct embroidery project, the fabric that is being embroidered will impact the number of stitches that are reasonable and the success of the finished design.

THREAD COLOR

When embroidering a client's logo or branding on a garment, a few things need to be established. One is the logo colors. Some companies will be fine if the logo colors are close to whatever has been used elsewhere. Other companies will be insistent that the thread colors match exactly and often will have brand or style guides that dictate what those colors should be, down to PMS numbers. If the company has PMS numbers available, this can help with thread matching, provided the preferred thread manufacturer makes a color that corresponds to those PMS numbers. If not, the options are finding a thread that looks close by eye or switching to another thread brand that does provide the necessary PMS color. Matching colors can be one of the most challenging parts of an embroidery job, as some customers can be picky about getting their logo colors exact.

GARMENT MATERIAL

Another challenge can be the material to be embroidered. While it would be nice if every customer wanted their logo embroidered on an Oxford dress shirt or an apron, that won't always be the case. Some customers will be attracted to performancewear or want their logo embroidered on a summer-weight T-shirt. While this sort of embroidery is possible, it may take specialty stabilizers and a bit of wizardry to get it done effectively. Anyone who embroiders knows the material you're embroidering impacts the job's difficulty and the success of the finished garment. Educating the client on why embroidery won't work on specific materials may well be part of the job for the embroiderer.

PATCHES

When embroidering directly onto the garment is not preferred, embroidered patches can be an ideal option. Whether the material is too difficult to work with, the item is too difficult to get on the machine, or the garment or item is reused and needs different branding or names added to it, patches offer a great solution. Embroidered patch options range from a small patch that goes on the left chest with an employee's



Above: Image courtesy The Red Ladybug Design in Belfair, Washington. **Right:** Image courtesy Logos by M in California.



name to larger patches that may have a company name or corporate branding to very large back patches that might go on jacket backs. Embroidered patches can also be done on embroidery machines with smaller sewing fields, making them useful for businesses working with a hybrid home/commercial embroidery machine.

An embroidery company that wants to offer patches has a couple of options. One is to make the patches in-house, either with a satin stitch border or a merrowed border (if the decoration company invests in a merrow machine). A merrowed border is generally considered the classic look for patches. Fabric for patches can be purchased from companies who will sell the entire patch “sandwich.” That is fabric with the Pellon and backing already laminated to it. Another option is to buy patch kits, which provide the fabric, heat seal backing, a hot knife, and a universal cutting tip. These kits can usually make one or a few patches, so they may not be the best option for larger orders.

Another option, if a company wishes to sell embroidered patches, is to buy the blank patches premade and simply add the required embroidery. There are some benefits and drawbacks to this op-

tion. One advantage is that classic merrowed borders can be offered without the expense of purchasing a merrow machine. Premade patches are also often made from polyester fabric, which provides a sturdy surface for embroidery. The drawbacks to ordering blank patches from a supplier may be that they have a limited merrow thread color palette or that they only offer standard shapes (square, circle, rectangle, and oval) and may have a limited range of sizes. One way to get around this issue might be to contract with a company that will make the entire patch, requiring your company to simply add it to the garment. For more elaborate patches or patches with unusual shapes, this may be the best option.

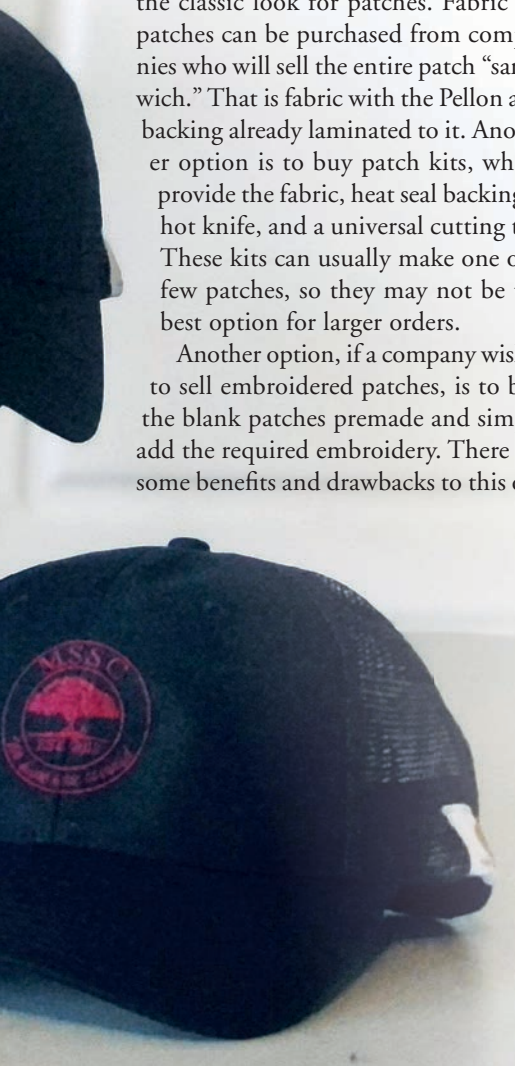
PROFIT

However embroidery is added to the garment, custom workwear can be a wonderful profit center for any embroidery business. Often, employee turnover or company expansion can guarantee a steady stream of work. Some companies will set up corporate online stores where employees can purchase or order various preselected garments for use in their jobs. Embroidery patches can expand the range of the items that can be embroidered, so that backpacks, lunch

bags, and even tumblers can feature embroidered logos or names.

Embroidery doesn't have to be a corporate logo on the left chest of a polo shirt or a name on a patch, although those types of embroidery can be lucrative jobs for any embroidery business. If a company wants to add a colorful, classic flair to their garments and swag, embroidery might be just the ticket. While embroidery does have some limitations and considerations when it comes to fabric, stabilizer, and design, the finished product can be something that will represent the business well and well into the future. Embroidery is a classic for a reason. It has stood the test of time and is often the go-to standard for those companies who want to project a classic feel with an element of elegance and sophistication. **GP**

KRISTINE SHREVE is the founder and CEO of Kristine Shreve Consulting, which offers writing, marketing, and business development services. The company can be found at www.kristineshreve.com. Kristine is also the creator and host of the Business + Women podcast and the marketing and outreach director for Applique Getaway. Kristine was the director of marketing for Ensign Emblem and EnMart from 2006 to April 2020.



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Are You Being Served?

THE NEW WORLD OF WORKWEAR

BY CARLY HOLLMAN



If how we choose to dress in the day-to-day is a reflection of our interests, personal tastes, and sometimes affiliations, it's no wonder that workwear and uniforms are an essential part of a brand or company's image presented to their existing and potential customers. But with a changing workforce and value system within many workplaces, how is this lucrative and diverse market influenced? GRAPHICS PRO asked a few experts in the market to shed light on the current trends in worker's wear.

THE NEW WORLD

One unavoidable trend in the world of workwear has been the shift in the ways workers do their daily duties. On the more corporate side, this has largely been influenced by work from home, where we were left to our own devices and quickly devolved from professional on top, athleisure on the bottom to whatever got us through the days. As most of the country and world has gotten back into a more normal routine, experts are seeing clothing that reflects the shifts in our new ways of doing business.

"Workleisure has opened up a whole new market to cater to this new environment," says Eric Rubin, Blue Generation. This can be seen in more knit purchases over wovens, more stretch and relaxed fit options, and lighter-weight fabrications, as comfort remains key. "We're seeing a movement away from heavyweight, restrictive materials. More and more, we're seeing lighter blends with four-way stretch," he says.

Items that can help workers adapt to various seasons and environments are crucial for a complete package offering. (Image courtesy GAME Sportwear)



This extends to largely consumer-facing industries too, with T-shirts incorporated more into uniform programs, says Michael Johnson, Hanes.

In the more formal restaurant world, Taraynn Lloyd, Edwards Garment, says this more casual and flexible mindset has resulted in decreasing brocade numbers. This style of vest was once a staple for front-of-house workers, but these employees are now being outfitted in solid-colored styles accented with jewel or restaurant-specific toned undershirts to help a look's longevity.

FUNCTION JUNCTION

With that said, there are still a few things that are the mark of a good workwear program.

"Market requirements for different uses are so wide that even basic apparel intro-

duced over 20 years ago still appeals to certain markets," says Rubin, which makes the accommodations for a changing climate not as intimidating as the employment numbers may seem.

"One of the biggest considerations is, of course, making sure the look aligns with the brand's overall image and the customer's perception of the duties a particular branch of the staff holds. Each position does not wear the same garments; however, using color, styling, and decoration, the garments work together as one," explains Lloyd.

For example, she says, while a front desk worker may be outfitted in a suit and the pool staff is in a polo and shorts, there is some identifier that lets clientele know, these people are in a position of assistance

Whether it's Gen Z nostalgia or an increased focus on worker's rights, non-reflective hi-vis clothing is having a moment in both workwear and uniforms. (Image courtesy Hanes)

and not just an unfortunate soul dressed in a similar style.

Another important touchstone of a successful workwear program is functionality. The ability to do one's job is tied to how well the day's task can be done in the required attire. This goes back to stretch and knit fabrics that allow more give, as well as other performance fea-

tures. According to Rubin, the essential qualities include easy care, stain resistance, and Teflon-treated materials that can withstand daily or industrial laundering. In addition, wicking and breathability help to make active days working within the hospitality service industries easier.

Another part of the functionality is adaptability. Thus, the increase in the popularity of "kits" says Roget Chavez, GAME

**KEY COLORS THAT
REMAIN POPULAR IN
THE WORKWEAR AND
BRANDING CATEGORY:**

- **BLACK**
- **GRAY**
- **NAVY**
- **EGGPLANT**
- **NON-REFLECTIVE
HIGH-VIS COLORS**

Many of today's uniform offerings have a more relaxed feel that gives workers the mobility they need to get their jobs done. (Image courtesy Edwards Garment)



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Sportswear. Many workers are exposed to various elements. Whether they are working in a contained environment designed to offset the elements or being directly exposed to them, making everyone feel comfortable with approved options is key. This likely includes a set of pants, shorts, T-shirts, vests, and polos that allows employees to keep the brand's key elements throughout the seasons and adapt to personal preferences.

The fits within these kits are also more likely to be less restrictive in years past, allowing for ease of movement while maintaining a professional appearance. "The service market is less concerned with contemporary silhouettes, as they require uniforms that can stand up under challenging conditions," states Rubin. This incorporates roomier silhouettes for more maneuverability as well as the aforementioned stretch and knit components.

BRANDING PLANS

To help bring a brand together, decorations are key. What is the employee's function? How will this garment work in the day-to-day? How can you bridge the gap between inherent visual cues (e.g., colors, cuts, and patterns) with blatant branding (logos)? "Research is crucial," says Chavez. Does this company evoke a high-scale air? Is it a more relaxed atmosphere? Is this person desk-bound or on the move all day? All of this influences the choice of physical decoration used. Embroidery, says Lloyd, is typically considered a high-end decoration, perfect for those greeting or interacting directly with clients. Other options include patches and heat transfer patches to emulate the embroidered look without vastly increasing costs or discomfort for the



Messes happen! Outfitting service industry workers means workwear needs to have stain-resistant properties. (Image courtesy Blue Generation)

wearer. For those performing more labor-intensive functions or work in a more laid-back environment, traditional heat transfers or screen printing not only hold up to the daily grind but are often lightweight and non-irritating to the wearer.

Whichever type of decoration is deemed best for the substrate that also serves its wearer's job function, it must align with the overall messaging. "Target audience seems like the hardest variable to nail down while building a company's image," says Chavez. To do so, make sure you understand the nuances of fonts, as the wrong one can easily send the wrong image. Color theory is another crucial aspect, as working with various departments that use different visual cues can make a difference in the style and type of decoration.

All of this is to emphasize the importance of researching the workwear markets within your particular area and the markets you want to engage with. Especially in this new era, wherein the rules are changing while maintaining some of the

staples of the "old world," an educated working knowledge is the best way to make your mark on this branding-heavy category. **GP**

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9 STRATEGIES TO SELL AMID SHORTAGES

Here we are, in the home stretch of 2021. The customers are coming back to life, ready to place their orders through the end of the year. Things are looking good! You connect with your preferred wholesale suppliers, and — pfft — there goes the air out of your balloon. The inventory is not available. Now what?

Unfortunately, this may be the situation you find yourself facing multiple times in the coming months. Here are several strategies to help you succeed despite the inventory shortages that you may run into. If one method does not work, try the next one. The apparel decoration business owner that creatively and persistently looks for and offers solutions

to their customers is the one that will get the orders as 2021 comes to a close.

STRATEGY NO. 1 - FIND THEIR WHY

Ask the customer why they are placing this particular order. If they need to outfit their staff, their need level for matching shirts is high. If they are ordering gifts for their best customers, they may have much more flexibility in the range of colors of shirts they could order. Offer alternative products as well. Show them products that fall within their budget and provide an equivalent perceived gift value.

STRATEGY NO. 2 - FIND THEIR BUDGET LIMITS

Ask the customer what their budget

limits are for this order. Once you know their low- and high-end ranges, you can look for alternative products that fit their budget needs to fill the order. Get creative and expand your product suggestions beyond the category they ordered initially. Yes, they ordered shirts, but maybe a duffel will work as a customer appreciation gift to have something in the timeframe they need.

STRATEGY NO. 3 - FIND THEIR TIME LIMIT

Ask the customer what their drop-dead in-hand date is. You may be able to secure the specific inventory needed if you had another week or two. On the other hand, if the order is for an event that is



coming up, your plan B will need to be offering substitute products to complete the order in time.

STRATEGY NO. 4 - GET CREATIVE WITH COLOR

Customers come to you for products with their designs on them. They typically envision that product only in their previously ordered colors and/or the company's colors. Offer products in the reverse of the colors they usually order. Put a light design on dark shirts for a change. If the inventory is not available in their colors or in the reverse, offer a monochromatic option, where the design and the shirt are the same color. Depending on how tightly their company's logo is controlled, this may open up all sorts of color options, ensuring that you can fill the order.

STRATEGY NO. 5 - WORK WITH YOUR WHOLESALER

You are frustrated because you cannot find the inventory needed to complete an order. Now, imagine that on a much larger scale — welcome to the world of your preferred wholesale suppliers. YIPES! Reach out to your account rep and give them a call when you are on the hunt for inventory. Take this extra step and make a call instead of accepting a dead end when you see the lack of stock online. Sometimes, they can give you additional insight about when specific products are expected or recommend alternatives that you may not have considered. They can let you know if back-ordering that inventory will help ensure you receive what you need when it does come into their system. Do yourself a favor when you are on the phone with these folks — be nice to them! They are handling call after call from fellow decorators in the same situa-

tion, and it cannot be an easy task. They are your lifeline, not your opponent!

STRATEGY NO. 6 - WORK WITH MORE THAN ONE

We all have our preferred vendors based on their location, product mix, and prices. In the face of inventory shortages, now may be the time to expand your options. While your usual supplier does not have enough of a particular product in the size or color you need, maybe another supplier just received that same inventory in their last shipment. Wholesale suppliers who typically maintained 10 million+ units on hand may currently be running as low as three or four million units.

STRATEGY NO. 7 - LEVEL UP

Chasing phantom inventory gets frustrating very quickly. In some instances, you can be more effective by contacting the mill or manufacturer directly. While they often will not sell to you based on the size of your order, they may be able to tell you where they sent the most recent shipments of the inventory you need. At least then you have a fighting chance to find it in stock when you know where to look.

STRATEGY NO. 8 - BREAK IT DOWN

When you work with your customer, see if the customer can break the order down into smaller orders. Maybe they need staff apparel for a new hire right away, but they have more time and can wait for the rest of the order. Are they ordering year-end items for their staff? Maybe some products are needed for an upper-level management dinner, and the rest at the end of December. Does each

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SETTING UP THE BEST Screen-Printing DARKROOM



BY TAYLOR
LANDESMAN

*A GUIDE TO PRE-PRESS
EQUIPMENT AND WORKSPACE*

Your screen-printing darkroom gets used constantly. It is the starting point for your screen-printing process and where you do most of your pre-press work. This makes it vitally important that you set up the best screen-printing darkroom possible. What makes a good darkroom can be broken down into two categories.



The proper equipment makes the best screens possible, which, in turn, lets you print better and faster. (Images courtesy Lawson Screen & Digital Products Inc.)





The first is the workspace, or the physical area itself. This includes considerations like temperature, humidity, and light. The second key thing for your screen room is making sure you have the right tools and equipment. The proper equipment makes the best screens possible, which, in turn, lets you print better and faster. Let's examine each of these key categories and how they interact with each other in your darkroom.

PROTECT YOUR EMULSION BY BEING LIGHT SAFE

A good place to start is just a basic understanding of what your darkroom is. This is the area where you are going to prepare

your screens, coat them with emulsion, and develop them. It is vitally important to make this area "light safe." This does not necessarily mean blocking out all the light as you would in a traditional photography darkroom. Instead, screen printers just need to filter out UV light.

When emulsion is exposed to UV light it begins to develop and harden. Accidental UV light exposure from the ambient light in the room will make it more difficult to burn and properly develop your screen.

Creating a light safe environment is relatively simple. You can use a yellow safe light, or a bug light. A more popular option is to get UV filters for your lights. These come in all shapes and sizes and are

a great way to filter UV light in the fluorescent tube lighting that is typically found in ceiling fixtures. If you have windows to block out, try using a UV film so you still get some (UV safe) light into your area.

MAKE BETTER SCREENS BY CONTROLLING THE ENVIRONMENT

During the screen creation process, you will be washing, drying, emulsifying, and drying your screen again. Most people do not separate their wash out area from their screen print area, so the water usage will raise the humidity levels in your darkroom. This creates a challenge as you need a low level of humidity for drying screens. To resolve this conflict, you should invest in a

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Most people don't separate their wash out area from their print area, and the water usage raises the humidity levels in the darkroom. This poses a challenge because you need a low level of humidity for drying screens. The solution? A good dehumidifier that can keep the room somewhere between 35-40% humidity. (Images courtesy Easiway Systems Inc.)

good dehumidifier to keep the room somewhere between 35-40% humidity.

A lot of people will also set up fans to help circulate air to speed up screen drying. This is not recommended as a fan can blow dust and dirt particles onto your screens and is a primary cause of pinholes and premature emulsion/stencil breakdown during printing. Ideally, you want to invest in a good screen drying cabinet. These come in different sizes to hold a varying number of screens, but in essence, they are a light safe way to store and dry your screens. These screen drying cabinets circulate hot, filtered air to rapidly dry screens.

EMULSION COATING – APPLY CONSTANTLY & STORE PROPERLY

Now that you are working in the best screen room environment, you want the proper tools and equipment. The first tool you will use is for coating your screens with emulsion. The most consistent way to do this is with an automatic screen coater. Such automatic pro-coaters can be programmed with virtually unlimited settings regarding the number of coats per side and coating speed so you can specify the exact amount of emulsion you want on your screen (also called EOM - emulsion over mesh). Other options include semi-auto emulsion coaters that move the screen while you hold the emulsion coater and a wall mounted unit that holds the screen in place for you so you can focus on proper coating technique without worrying about holding the screen.

No matter how you coat your screens, make sure to store them properly using a screen rack. Dry them print side down (squeegee side up) in a clean and light safe area, as discussed earlier.

EXPOSE YOUR SCREENS – LED LIGHT & TIME

Once coated with emulsion and dried, you will expose your screens. LED exposure units provide the quickest exposure. However, make sure that you get a LED unit with a nanometer range that works

with SBQ-photopolymer and dual-cure emulsions. LED exposure units that only work with certain types of emulsion are very limiting.

The best exposure units have a solid vacuum to compress your film positive to the frame. Without a vacuum, you will get “light creep” or “light scatter,” which is when the UV light bends around the image on your film positive. This can cause “sawtoothing” and non-straight lines on your screen. You might also end up losing halftones and fine print if your exposure unit does not have a vacuum. A proper vacuum motor solves these issues by creating tight contact between your film positive and the screen mesh.

Calculating the proper exposure time is key to a good screen. If you underexpose,

your emulsion will be soft and too much may wash away during development or lead to pinholes on press. Overexposure will harden the emulsion, causing you to lose fine lines, text, and halftones. Having a wedge test or step calculator helps dial in the right amount of exposure time as it provides real life feedback on your screen so you can see the results. Remember, a change in coating technique, emulsion, and even mesh count can affect your exposure time. For this reason, LED units with a programmable touchscreen that can store your settings are ideal.

DEVELOP YOUR SCREENS

Once exposed, you can develop (wash out) the emulsion so that you are ready to print. One easy way to do this is with a dip tank.

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While most people think of dip tanks only for reclaiming, you can fill a clean dip tank with water to develop your screen. Using a dip tank in this way softens your unexposed emulsion so it can be easily washed away without worrying about accidentally blasting out any halftones or details.

If you do not use a dip tank, the best practice is to have a different washout booth separate from reclaiming just for developing your screens. This helps to minimize cross-contamination and extend the life of your newly prepared screen.

Using this guide will help you select the right tools and establish the best operating procedures for running a proper screen room/darkroom. Having a proper screen room establishes best practices and provides a solid foundation for the screen-printing process by increasing production, reducing consumable costs, and minimizing labor expenses. **GP**



TAYLOR LANDESMAN is a third-generation family owner and vice president at Lawson Screen & Digital Products. Having started building exposure units at Lawson during his summer breaks from middle school, Taylor worked in various positions throughout the manufacturing process. After getting his law degree, he practiced law in Chicago. Missing the draw of screen printing, he rejoined Lawson in 2016. Taylor currently focuses on marketing, sales, and helping screen printers achieve more.



Top: For shops looking to improve efficiency and reduce consumable costs, a computer-to-screen (CTS) system eliminates the need for film positives. (Image courtesy The M&R Companies) **Above:** While most people think of dip tanks only for reclaiming, you can fill a clean dip tank with water to develop your screen. (Image courtesy Easiway Systems Inc.)

20
21 LOOK
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UNISEX SPONGE FLEECE PULLOVER / 3719

COLORS: White, autumn, poppy, yellow, DTG white, vintage white, ash, athletic heather, deep heather, dark gray heather, DTG dark gray, dark gray, DTG black, black heather, black, tan, heather sand dune, gold, heather mustard, peach, mauve, red, heather red, heather maroon, maroon, team purple, storm, lilac, heather true royal, true royal, heather navy, navy, heather deep teal, heather slate, teal, forest, heather forest, military green

SIZES: XS-3X

FABRIC COMPOSITION: **Solid Colors:** 52/48 Airlume combed and ring-spun cotton/polyester fleece; 7-oz; 32-singles (Ath. heather: 90/10 combed and ring-spun cotton/polyester); **Heather navy:** 60/40 Airlume combed and ring-spun cotton/polyester fleece; 7-oz; 32-singles; **Marble colors:** 85/15 Airlume combed and ring-spun cotton/polyester fleece; 7-oz; 32-singles; **DTG colors:** 70/30 Airlume combed and ring-spun cotton/polyester fleece; 100% Airlume combed and ring-spun cotton face; 8-oz; 32-singles

FEATURES: Side-seamed; retail fit; unisex sizing; white cord draw-string; kangaroo pockets; ribbed cuffs and waistband



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COLLEGE HOODIE / JHA001

COLORS: Arctic white, air-force blue, ash, baby pink, bur-gundy, burnt orange, heather gray, steel gray, charcoal, black smoke, jet black, hot pink, ma-genta magic, purple, fire red, red hot chili, sunset orange, orange crush, gold, sun yellow, vanilla milkshake, nude, des-ert sand, hot chocolate, lime green, Kelly green, olive green, bottle green, peppermint, jade, sky blue, Hawaiian blue, sap-phire blue, royal blue, oxford navy, French navy

SIZES: S-5X (in select colors)

FABRIC COMPOSITION:

80/20 ring-spun cotton/poly-ester; 100% cotton face

FEATURES: Tear-away la-bels; self-colored drawstrings; double fabric hood

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LETTERMAN JACKET / JHA043

COLORS: Black/white, black/heather gray, black/fire red, black/orange crush, black/sun yellow, hot pink/heather gray, purple/heather gray, burgundy/heather gray, fire red/heather gray, Kelly green/heather gray, royal blue/heather gray, oxford navy/white, oxford navy/heather gray

SIZES: S-3X

FABRIC COMPOSITION: 70/30 ring-spun cotton/polyester; 100% cotton face

FEATURES: Contrast sleeves; knitted collar, cuffs, and waistband with stripe details; press button closures; tear-away labels

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CROSS NECK HOODIE / JHA021

COLORS: Oxford navy,
black, heather gray

SIZES: S-3X

FABRIC COMPOSITION:

70/30 ring-spun cotton/poly-
ester, 100% cotton face

FEATURES: 9.8-oz heavy-
weight hoodie; tear-away
labels; cross over neck detail;
three-panel double fabric
hood; flat lace drawcords;
thumb hole in cuffs

JHA021



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996MR

NUBLEND UNISEX HOOD / 996MR

COLORS: Ash, athletic heather, black, black heather, blush pink, burnt orange, California blue, cardinal, charcoal gray, chocolate, classic pink, Columbia blue, cool mint, cyber pink, deep purple, denim, forest green, gold, j. navy, Kelly, kiwi, light blue, maroon, military green, military green heather, mustard heather, neon green, neon pink, oatmeal heather, oxford, periwinkle blue, retro heather coral, rock, royal, safari, safety green, safety orange, sage, sandstone, scuba blue, sunset coral, sweet cream heather, t orange, true red, vintage heather blue, vintage heather maroon, vintage heather navy, vintage heather red, white, golden pecan

SIZES: S-3X

FABRIC COMPOSITION: 50/50 cotton/polyester NuBlend pre-shrunk fleece

FEATURES: Pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing canvas; tear-away label

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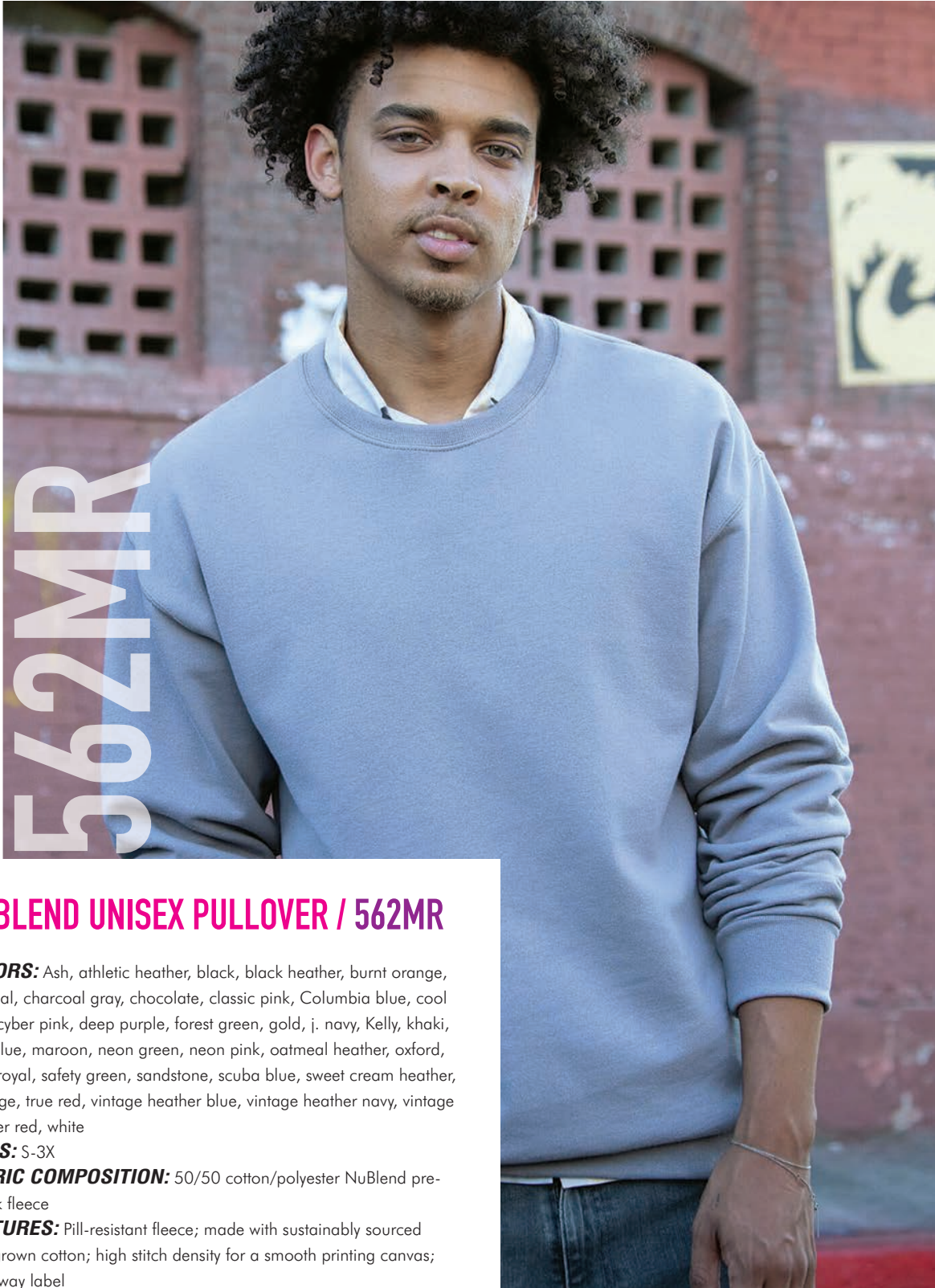
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562MR

NUBLEND UNISEX PULLOVER / 562MR

COLORS: Ash, athletic heather, black, black heather, burnt orange, cardinal, charcoal gray, chocolate, classic pink, Columbia blue, cool mint, cyber pink, deep purple, forest green, gold, j. navy, Kelly, khaki, light blue, maroon, neon green, neon pink, oatmeal heather, oxford, rock, royal, safety green, sandstone, scuba blue, sweet cream heather, t orange, true red, vintage heather blue, vintage heather navy, vintage heather red, white

SIZES: S-3X

FABRIC COMPOSITION: 50/50 cotton/polyester NuBlend pre-shrunk fleece

FEATURES: Pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing canvas; tear-away label



975MPR

NUBLEND POCKETED JOGGER / 975MPR

COLORS: Ash, athletic heather, black, black heather, j. navy, white

SIZES: S-3X

FABRIC COMPOSITION: 60/40 cotton/polyester pre-shrunk fleece

FEATURES: Pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing canvas



JERZEES®



NUBLEND COLOR-BLOCK HOOD / 96CR

COLORS: Oxford/black, oxford/forest green, oxford/j. navy, oxford/royal, oxford/true red

SIZES: S-3X

FABRIC COMPOSITION: 50/50 cotton/polyester NuBlend pre-shrunk fleece

FEATURES: Pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing canvas; tear-away label; color-block styling; raglan sleeves

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Style: 695HBM1
9.3 oz 50/50 blend
Dri-Power® Hoodie

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993MR

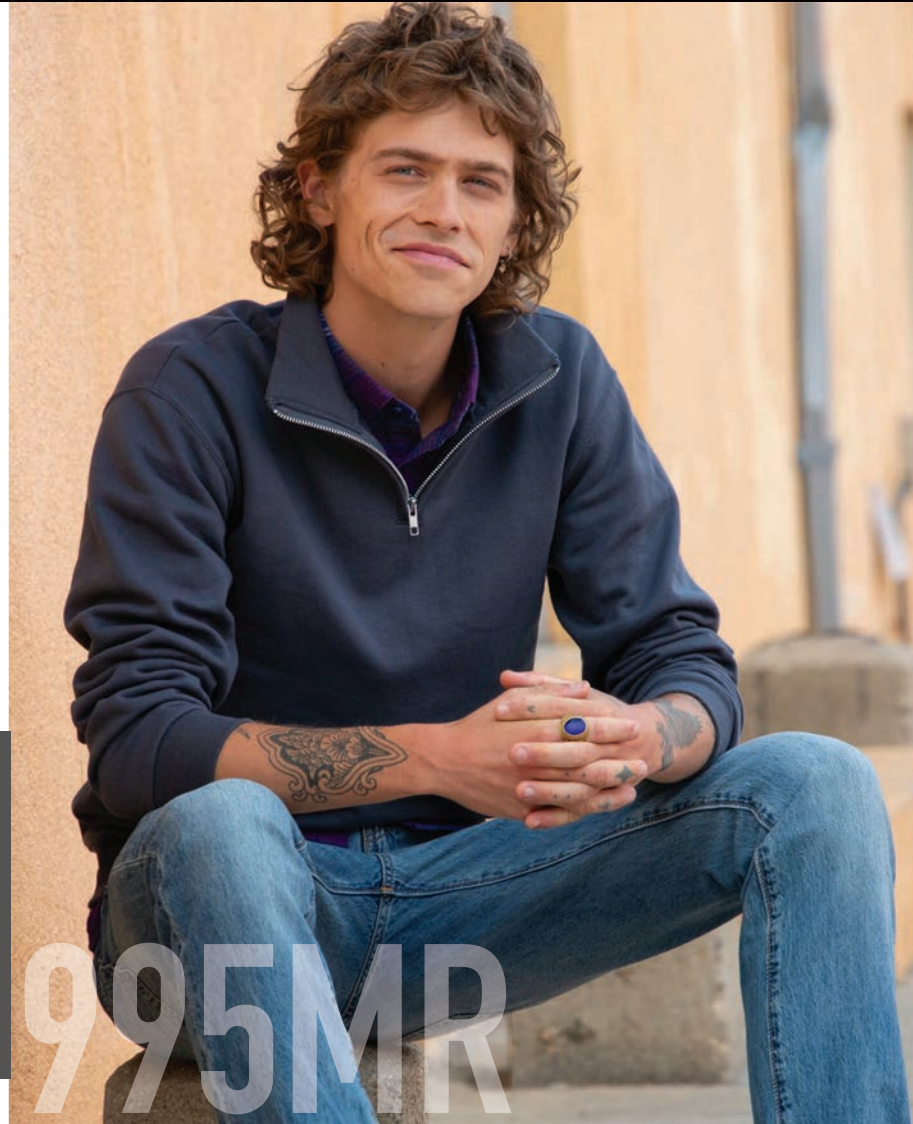
NUBLEND FULL-ZIP HOOD / 993MR

COLORS: Ash, athletic heather, black, black heather, forest green, j. navy, maroon, oxford, royal, safety green, safety orange, true red, vintage heather navy, white

SIZES: S-3X

FABRIC COMPOSITION: 50/50 cotton/polyester NuBlend pre-shrunk fleece

FEATURES: Unisex; pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing surface; tear-away label; aluminum zipper; front pouch pockets



NUBLEND QUARTER-ZIP / 995MR

COLORS: Ash, black, black heather, charcoal gray, forest green, j. navy, maroon, oxford, royal, true red, vintage heather navy, white

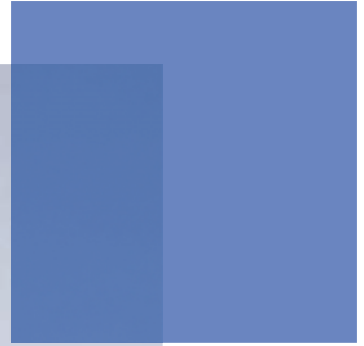
SIZES: S-3X

FABRIC COMPOSITION: 50/50 cotton/polyester
NuBlend pre-shrunk fleece

FEATURES: Pill-resistant fleece; made with sustainably sourced USA-grown cotton; high stitch density for a smooth printing canvas; tear-away label; stylish cadet collar; concealed 6" aluminum zipper



COMFORT COLORS®



1545

COMFORT COLORS®

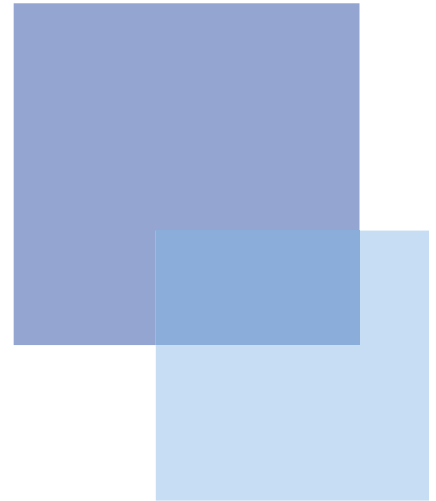
COLOR BLAST SWEATSHIRT / 1545

COLORS: Amethyst, citrine, clay, fern, ocean, smoke

SIZES: S-3X

FABRIC COMPOSITION: 9.5-oz 80/20 ring-spun U.S. cotton/polyester

FEATURES: Back neck patch; double-needle 1X1 rib collar; double-needle neck, shoulder, armhole, cuffs, and waistband; twill taped back neck; rolled forward shoulder; relaxed fit, side-seamed body; twill label; pigment-dyed technique with Color Blast effect in every garment



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COLOR: CLAY
DYE: GARMENT

STYLE: 1745
COLOR: CLAY
DYE: GARMENT
MAT'L: COTTON

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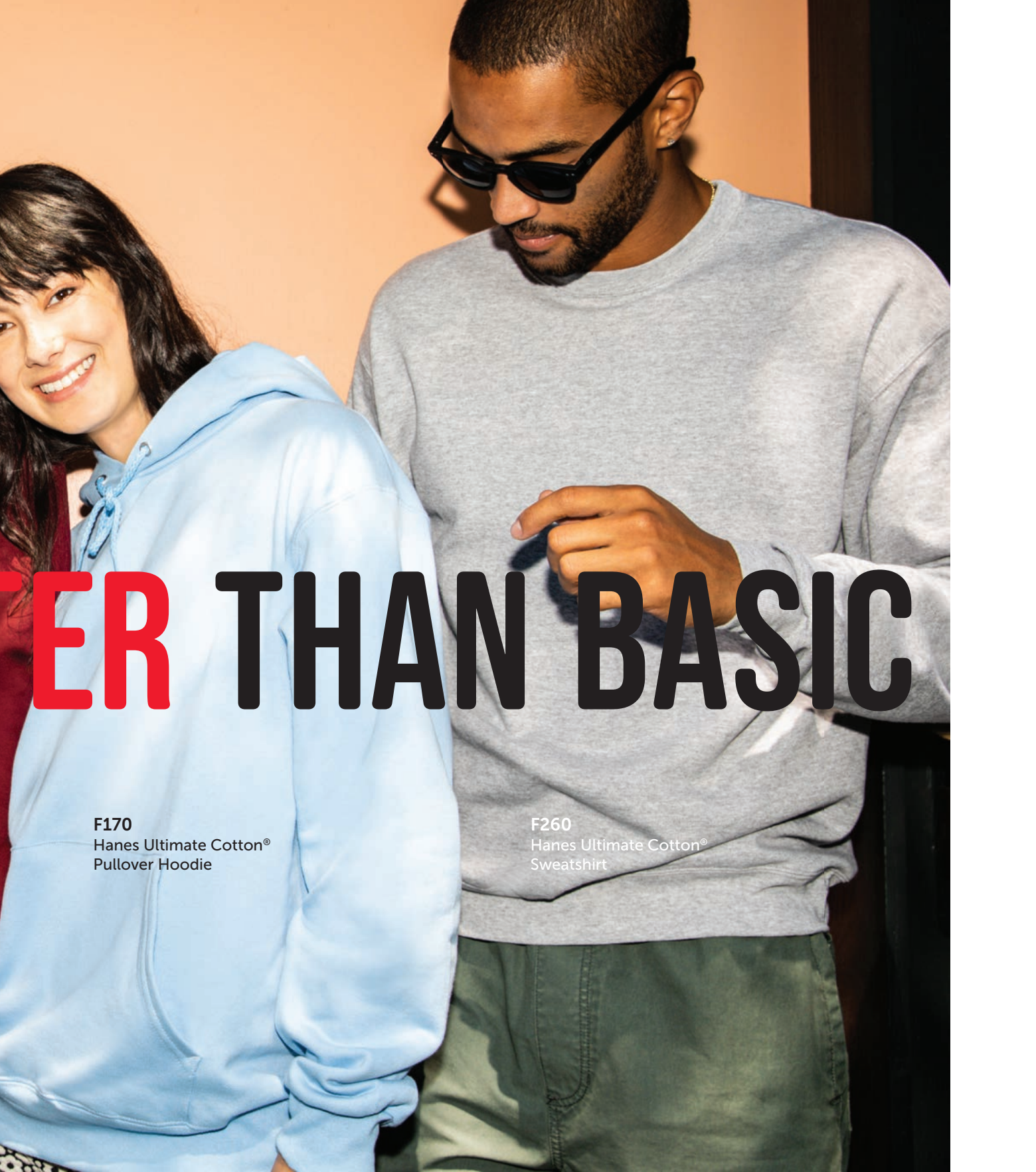


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F170
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ULTIMATE COTTON HOODIE / F170

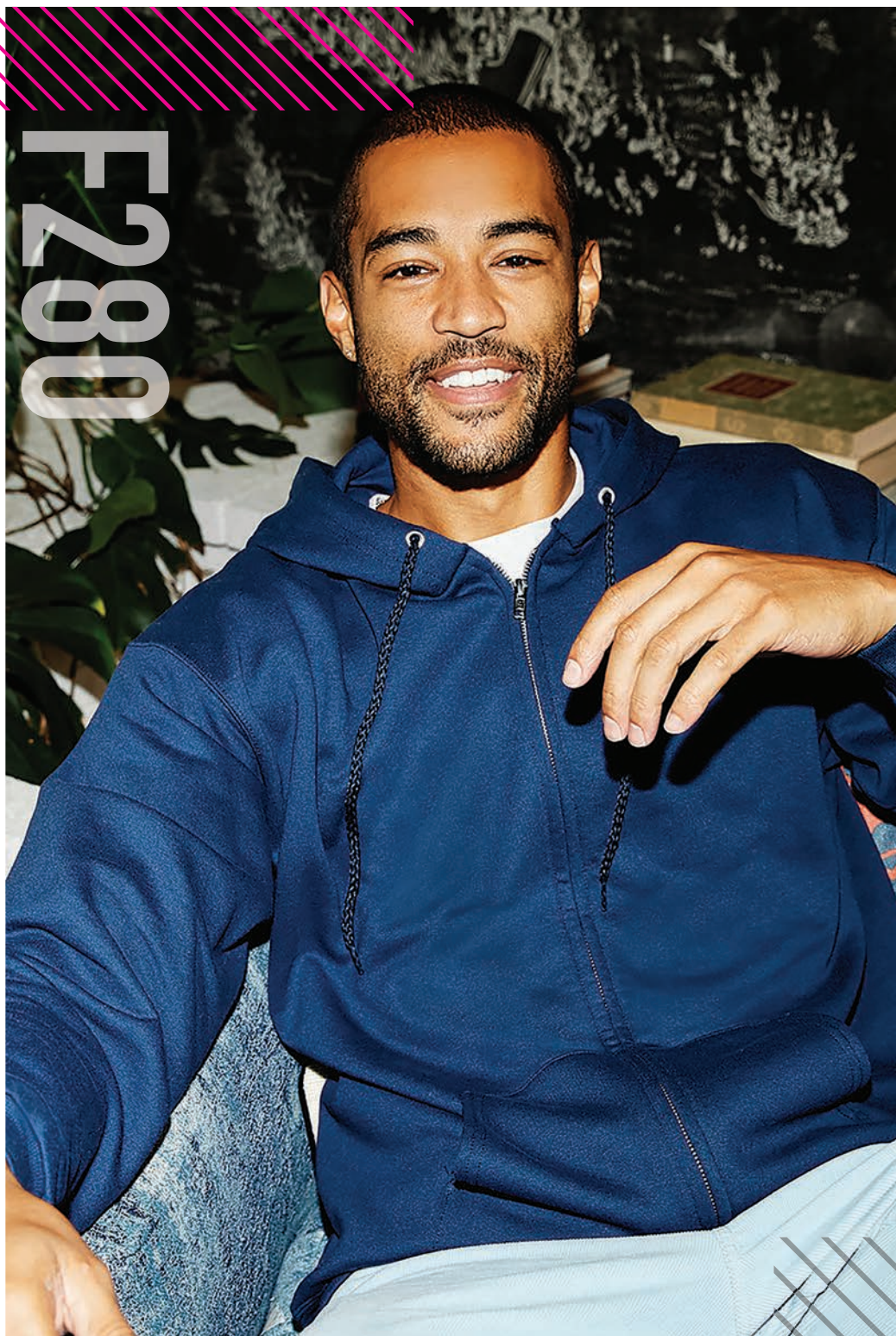
COLORS: Ash, black, charcoal heather, dark chocolate, deep forest, deep red, deep royal, light blue, light steel, maroon, navy, oxford gray, white

SIZES: S-5X

FABRIC COMPOSITION: 9.7-oz 90/10 cotton/polyester; 100% cotton face

FEATURES: Perfect for DTG printing; 2-ply hood with jersey lining and dyed-to-match drawcord

F170



ULTIMATE COTTON FULL- ZIP / F280

COLORS: Ash, black, charcoal heather, dark chocolate, deep forest, deep red, deep royal, light steel, maroon, navy, oxford gray, white

SIZES: S-3X

FABRIC COMPOSITION: 9.7-oz 90/10 cotton/polyester; 100% cotton face

FEATURES: Perfect for DTG printing; 2-ply hood with jersey lining and dyed-to-match drawcord; covered zipper



Hanes®



F260

ULTIMATE COTTON CREW / F260

COLORS: Ash, black, charcoal heather, dark chocolate, deep forest, deep red, deep royal, light blue, light steel, maroon, navy, oxford gray, white

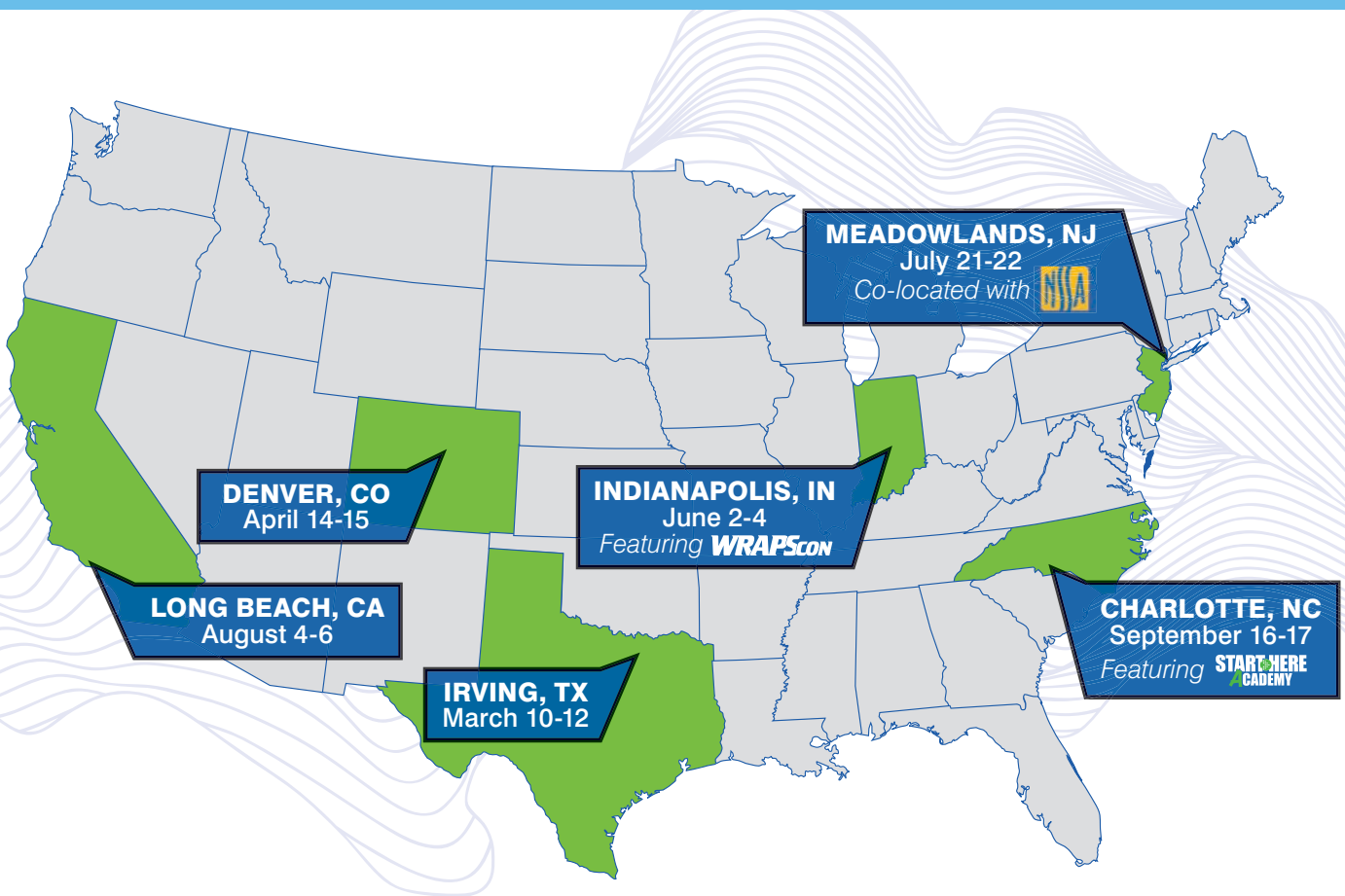
SIZES: S-5X

FABRIC COMPOSITION: 9.7-oz 90/10 cotton/
polyester; 100% cotton face

FEATURES: Perfect for DTG printing

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ADULT STATEMENT JOGGER / 8996

COLORS: Black/titanium, granite heather/black

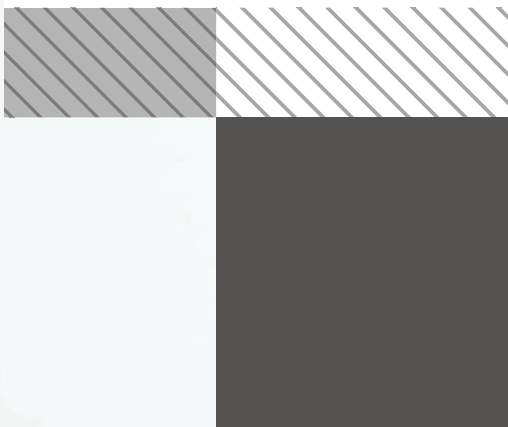
SIZES: S-2X

FABRIC COMPOSITION:

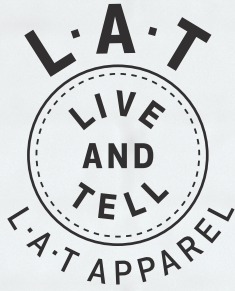
Solid Colors: 7.4-oz 60/40 combed ring-spun cotton/polyester three-end fleece; 100% cotton face

Granite Heather: 7.4-oz 55/45 combed ring-spun cotton/polyester three-end fleece; blended cotton/polyester face

FEATURES: Flat, braided drawcords with contrast detail at stitched ends; 2" elastic waistband; side pockets; contrast super-stretch rib at leg opening; side-seam construction; EasyTear label



8996



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6926

ADULT FLEECE HOODIE / 6926

COLORS: Black, black leopard, coyote brown, granite heather, military green, navy, red, storm camo, vintage camo

SIZES: S-3X

FABRIC COMPOSITION:

Solid Colors: 7.4-oz 60/40 combed ring-spun cotton/polyester three-end fleece; 100% cotton face

Granite heather and vintage camo: 7.4-oz 55/45 combed ring-spun cotton/polyester three-end fleece; blended cotton/polyester face on granite heather and printed colors

FEATURES: Jersey lined hood; dyed-to-match jersey fabric back neck tape; back locker patch; matching flat braided drawcords; straddle stitched neck, armholes, sleeve cuffs and bottom band; front kangaroo pocket; double-needle hem on hood and pouch pocket; side-seam construction; EasyTear label



6996



ADULT STATEMENT HOODIE / 6996

COLORS: Black/titanium, coyote brown/black, granite heather/black, military green/black, navy/titanium, vintage camo/titanium

SIZES: S-3X

FABRIC COMPOSITION:

Solid Colors: 7.4-oz 60/40 combed ring-spun cotton/polyester three-end fleece; 100% cotton face

Granite heather and vintage camo: 7.4-oz 55/45 combed ring-spun cotton/polyester three-end fleece; blended cotton/polyester face on granite heather and printed colors

FEATURES: Three-piece double-needle cross-over hood construction; contrast hood lining; back locker patch; woven back neck tape with ticked pattern; flat, braided drawcords with contrast detail at stitched ends; front kangaroo pocket; contrast super-stretch rib cuffs and bottom band; side-seam construction; EasyTear label



UNISEX FLEECE CREW WITH POCKET / 9001

COLORS: Black, forest green, mid-night navy, natural, white, maroon, heavy metal, red, royal

SIZES: XS-3X

FABRIC COMPOSITION:

7.4-oz/250g 80/20 cotton/polyester; 100% cotton face

FEATURES: Pullover style; large front pocket; include locker patch for more branding options

9001



INTRODUCING

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9302

UNISEX MALIBU HOODIE / 9302

COLORS: Oatmeal, heather military green, heather mid-night navy, heather slate blue, heather gray, heather cardinal, heather black

SIZES: XS-3X

FABRIC COMPOSITION:

7.4-oz/250g PCH fleece;
60/40 cotton/polyester;
30-singles; 60/40 CVC face

FEATURES: Heather fleece;
cotton-heavy face to provide
printability and breathability



UNISEX SANTA CRUZ ZIP HOODIE / 9602

COLORS: Black, midnight navy, royal, white, heavy metal, maroon, forest green, red

SIZES: XS-3X

FABRIC COMPOSITION: 7.4-oz/250g fleece; 80/20 cotton/polyester; 30-singles; 100% cotton face

FEATURES: Cotton-heavy face for printability and breathability; classic zip hoodie

9602



P603C

PLATINUM ADULT CVC LONG SLEEVE / P603C

COLORS: Jet black, maroon, harbor blue, forest, charcoal heather, graphite heather, athletic, navy, red, royal, charcoal, putty, athletic heather gray, denim heather, royal heather, turquoise, pool blue, celadon green, steel blue, Kelly green

SIZES: S-3X

FABRIC COMPOSITION: 4.3-oz/146g; 60/40 combed ring-spun cotton/polyester; 30-singles

FEATURES: Side seamed; long, set-in sleeves; 3/4" rib-knit collar with spandex; single-needle topstitched collar; tape neck and shoulder seams; 1/8" two-needle sleeve and bottom hems; satin tear-away label



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WOMEN'S MELANGE QUARTER ZIP / 2995V

COLORS: Gray heather/black, gray heather/royal, gray heather/gunmetal, gray heather/navy, gray heather/red, gray heather/neon pink

SIZES: XS-XL

FABRIC COMPOSITION: 6.5-oz 87/13 polyester/spandex sueded melange jersey

FEATURES: Extra soft sueded jersey perfect for layering; raglan sleeve for range of motion; contrasting zipper color; sizes labeled for juniors for a snug fit; available in men's fit and sizes



2995V



ADULT FRENCH TERRY ZIP HOODIE / 97300

COLORS: Graphite heather, charcoal heather, black, athletic navy, denim heather, royal heather, Kelly heather, heliconia pink heather, purple heather, red heather, oatmeal heather

SIZES: XS-3X

FABRIC COMPOSITION:

7.5-oz/250g; 55/45 cotton/polyester

FEATURES: Ring-spun pre-shrunk French terry; 1X1 rib cuffs with spandex; dyed-to-match drawcord with antique metal grommets; side-seamed; allover cover-seamed construction; tear-away label; 4" locker patch at the back of the neck for easy relabeling; front pouch (kangaroo) pocket



GP



MAKING PROGRESS WITH DATA ANALYTICS

GOING DEEP INTO THE INFO TO PROPEL YOUR SUBLIMATION BUSINESS

Making moves with your sublimation process using data analytics can help your process grow in many ways, including marketing your product, how much stock or supplies to have on hand, how many employees you need for production, how much equipment is needed, and more.

ANALYTICS EXPLAINED

First, what are data analytics? That is an important question. I am 40 years old and did not learn the term or understand it until three years ago, but I

always applied it. Data analytics is the science of analyzing raw data to make conclusions about that information. Data analytics helps businesses to optimize their performance (Investopedia).

You can create data analytics by hand — which is the slowest way — or invest in software, such as QuickBooks, that keeps track of all that data you enter and records all your buying, selling, etc.

For example, let's look at your marketing process. If you record your data by hand or software and start keeping track of every single sublimation item

you sell, along with the quantity, color, how many per week, per month, etc., that gives you a ton of data to work with. This allows you to see what you are selling and how many. Now you can start building a marketing plan. How many of what do I want to sell? What is my goal per month, per quarter, and total for each item for the year? With these goals in place, you can now work to track yourself and see what periods are slower than others.

With this information, you can help control your spending on marketing. In



your slower months, you want to market heavier the month before to get the word out before the next month hits to help promote and improve sales.

So, instead of promoting heavily year-round, you can focus on heavier promotion during the slower periods, allowing you to conserve spending. By better controlling your marketing fund, that helps conserve cash flow right away. Most companies never really know when or where they need to be marketing.

With data analytics, you can even check to see which customers are purchasing the

products. Knowing the industries allows you to target the market as well. We spend less than 1% of our annual revenue on marketing. How is this possible? Data analytics. We know out of the gate — since we focus on customer service, quality, and turnaround time — that most of our customers come to us by word of mouth, so we focus on giving items away with our logo on them in our showroom while giving out sale flyers. We also dabble in radio, TV, social media, and sponsoring some events as well. Radio and TV marketing are not as strong as they once were.

Learn to become your own brand and marketing agent by using your data. It will help you cut wasteful spending and pack a punch with your marketing in the months and locations you market to. You do not need 1,000 new customers. You need five good ones that spend as much as 1,000 customers. Focus on quality over quantity. Never let one customer be larger than 10% of your annual sales. Always keep financial control.

By knowing your data and marketing plans, you can now focus to your stock on your blank items and the supplies you



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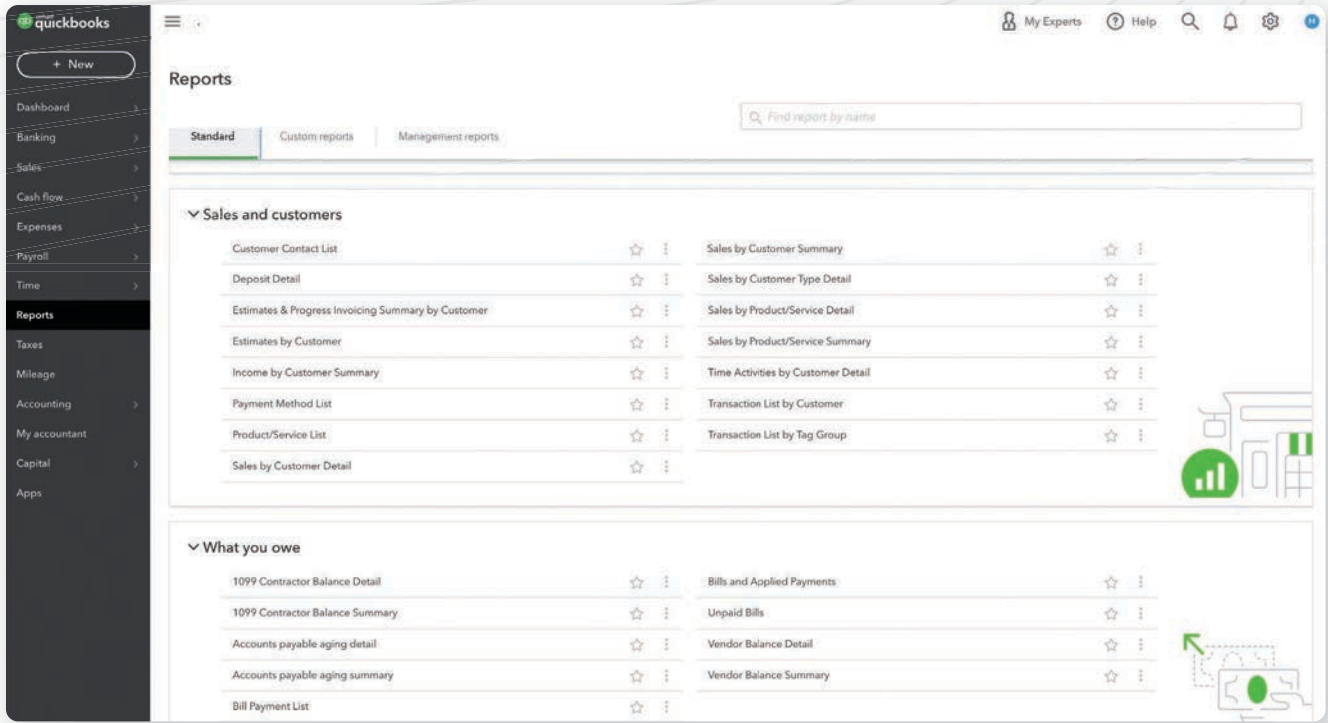
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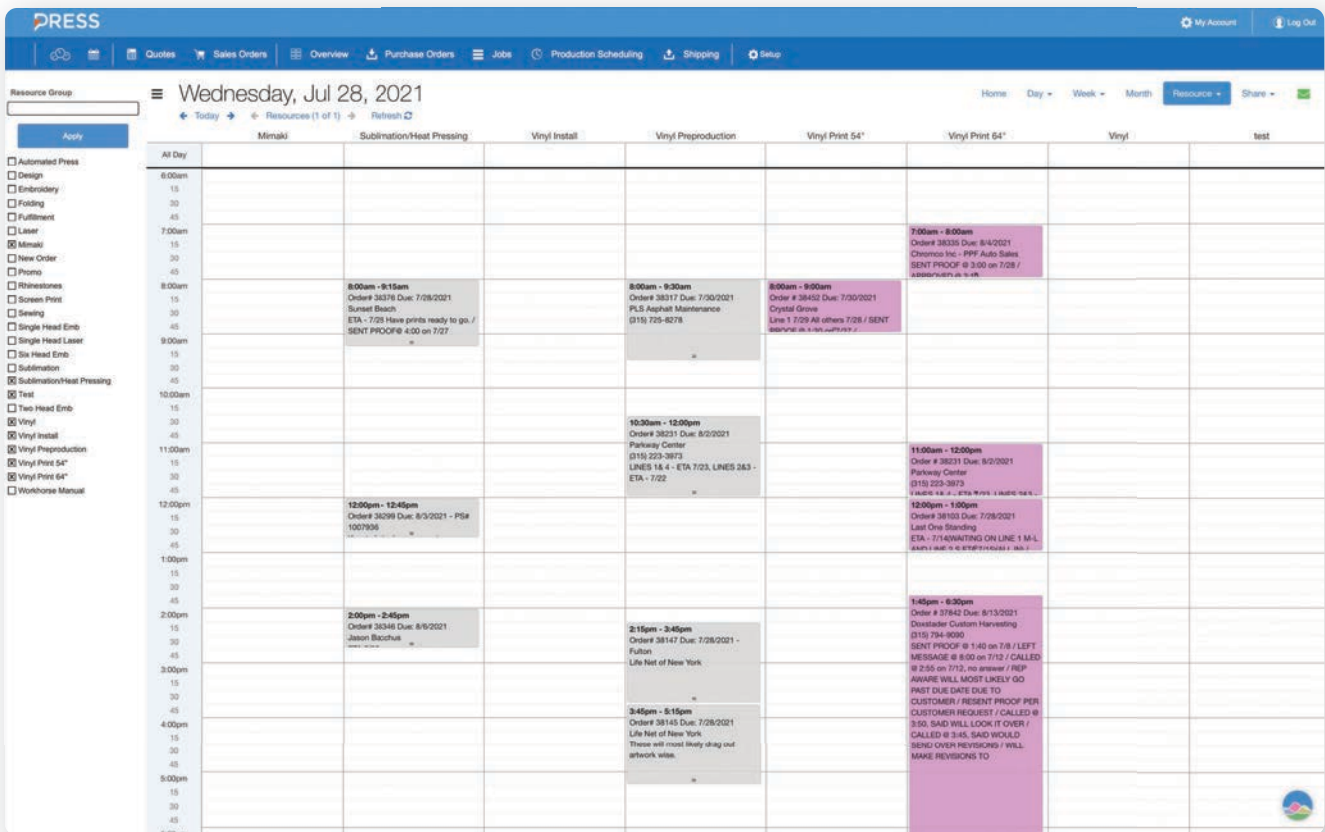
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TOPMOST
WORLD

MAKING SUBLIMATION MOVES



Above: Snapshot of my Quickbooks screen where I can track numbers for each process and average per piece sale unit price along with the percentage it makes up for our company. **Below:** Our customer software that has our production calendar built into it to book and manage production. (Images courtesy of Howard Potter.)



need for your sublimation process to keep up with your orders.

For example, we ran a sale on coffee mugs. We looked at our sales for the item and knew we sold at least 900 per year or 75 per month, which is not a ton, but still a good amount for the time. Then we reached out to our suppliers to check case pricing and how many to a skid. We found that buying by the skid would cut our pricing by 50 cents per mug, but we had a new issue — storing them. So, we worked out a contract deal. The first four months of the year, we would take 10 cases each month, giving us time the year before to market harder in the first quarter.

Another great thing about having stock that no one thinks about — mugs can break or have coating defects, so you usually have to hold them and return them for credit, and most often, you may not have enough to finish your order. By having stock, you just grab another mug and finish your order. This allows you to keep production moving faster and get paid faster. It gives you the ability to take more rush orders too. Our first year doing this, we ended up going through two skids of coffee mugs and improved our production times and profit margins on this one item alone.

STAFFING AND EQUIPMENT

The next two things knowing your data analytics can help with are staffing and equipment. When you track your production times with each staff member, you can build an average run time. You can truly know your employee cost per item and your average profit per hour. Once you have an average, and if your staff can run more than one piece of equipment at a time, then you can maximize your average output along with their hourly rate for handling more work at once.

Once you get to an 85% average of what your equipment and employee can handle, you can use your data analytics to determine growth patterns and when you might need more staff or equipment. You do



not want to wait until either are at 100% compacity, or you take a chance of burning either one out. Always be proactive in avoiding that. You never want to overwork your crew or equipment, and your data can help curb that by setting realistic goals. If you overwork your staff, your quality can slip, and you can burn your equipment out at the same time. Lose-lose for all. Use your data to improve production, maintain quality, and stay ahead of your growth patterns to build a great work environment and high-quality products for your customers.

As you can see, knowing your data analytics is key to knowing how fast your company can grow to the next level in. Use it

to your advantage to not only grow your company but to protect your company. All you need to do is invest your time in learning and knowing your numbers and apply them! **GP**

HOWARD POTTER has worked in the promotional industry for 17 years, from designing to building brands and a family-owned business. He is the co-owner and CEO of A&P Master Images LLC with his wife, Amanda. Their company offers graphic design, screen printing, embroidery, sublimation, vinyl graphics, and promotional items. Howard, his family, and the business reside in Utica, New York. For more information, please visit masteryourimage.com.

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MAPPING YOUR CUSTOMER'S JOURNEY

COVER ALL THE TOUCHPOINTS TO ENSURE A SATISFACTORY EXPERIENCE

This month, I'm excited to share some thoughts, tips, and tricks to map out and improve your customer experience journey. This journey consists of all the touchpoints your current and potential customers have with your company. Your customer's journey includes the moment they learn about you, place an order, communicate during production, get the delivery, and follow up post-sale.

Do you have a process and plan in place for all of those touchpoints? And even if you do, are you aware of your customer experiences and what rough spots you might be missing? For many people, you might be staring down the barrel of a loaded holiday shopping season. You might think that I'm crazy even to suggest looking at your overall communication at this time. But, you must have your arms around this as best you can before the holiday season starts. Otherwise, you will be spending extra time communicating and solving problems that result from missed expectations instead of producing and making excellent profits with all of the holiday sales coming your way.

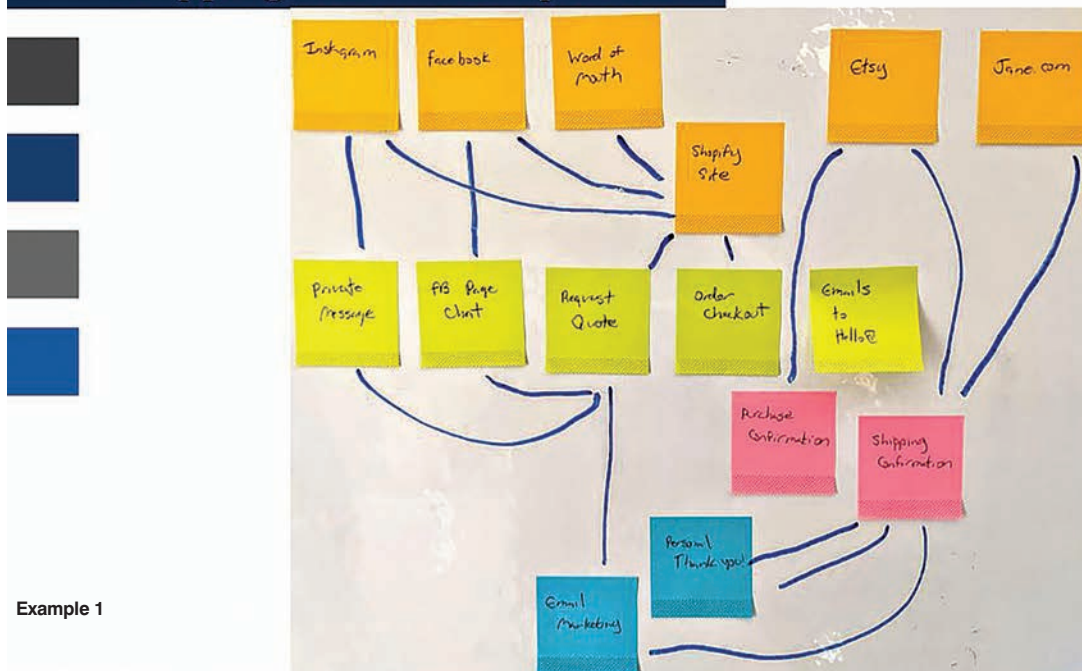
MAP OUT TOUCHPOINTS

Let's start with mapping every touchpoint from start to finish. Most customer journeys include these four main segments:

- The discovery phase (when they first hear about you)
- The engagement phase (when they communicate with you about a potential order)
- The buying to delivery phase (all the touchpoints from placing the order to receiving the goods)
- And the post-sales phase (the follow-up and confirmation of a successful partnership)

In a perfect world, the journey for loyal customers would be a straight highway like this: see product, buy product, use product, repeat. But in reality, it is more like a sightseeing expedition with stops, exploration, and discussion along the way — all moments when you need to convince people to pick you by aligning your content and communications with the problems you can solve for your ideal customers.

Mapping the Entire Experience



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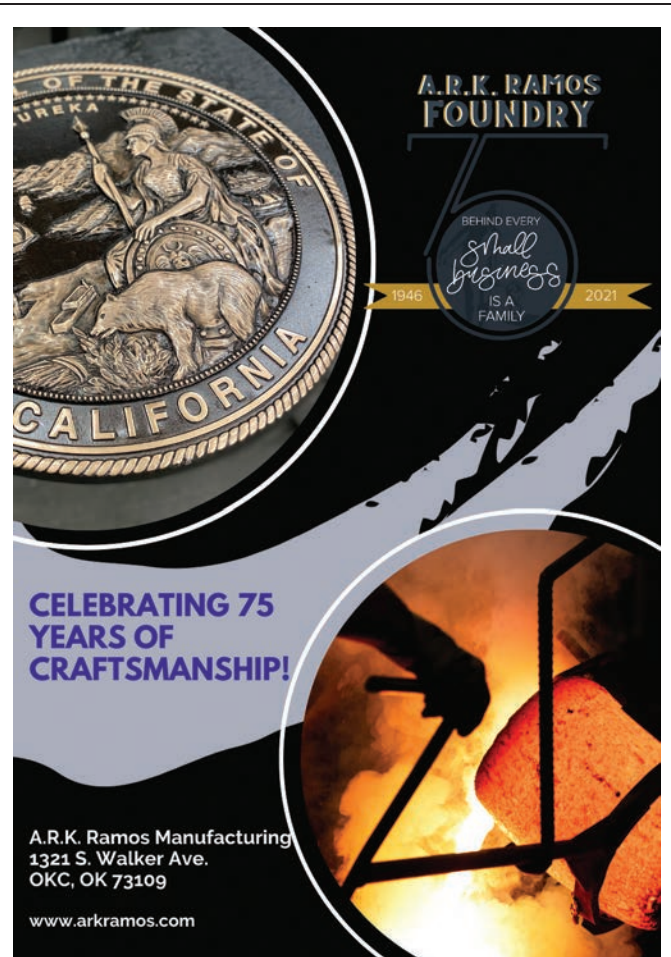
Doing the work now to create this map of touchpoints relieves the overwhelm of trying to stay on top of everything and gives you a process for seeing the big picture to adjust continuously. It can give you an understanding of how your customers are currently interacting and provide you the opportunities to use technology and automation to improve the speed of response.

The first thing to do is begin making a list of all the different touchpoints our customers could have with us over the life of their interactions with your company. The goal is to ensure there are no blind spots or black holes where the customer's expectations don't match the interaction. To document this, I like to start with a stack of sticky notes and make one note for every touchpoint. I typically have four colors of notes to color code these into those four phases we listed above. Add everything you can think of. (See **Example 1, page 72**)

Then, if you want a more digital way to manage your map, at Our Success Group, we suggest a tool called WriteMapper (writemapper.com). (See **Example 2, page 74**)

You can transfer your sticky notes or even capture them from the start with this tool. This allows one central location to keep notes, make lists of the updates, and collaborate with others. There are other tools as well, like Canvanizer (canvanizer.com), MindMeister (mindmeister.com), or Workflowy (workflowy.com). As you see in my examples, I'm a very linear, vertical thinker. But others might be more horizontal, left-to-right thinkers. Do what feels right for you. There is no right or wrong way.

Once you have a picture of your customer's experience journey, you now have a map to make improvements. One of the best



THE RISING TIDE OF BUSINESS



Mapping the Entire Experience



Example 2

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ways to improve the experience is adding some automation to the journey. As Jay Baer, author of several books, including “Hug Your Haters” and “Talk Triggers,” says, “Speed is a choice.” It is possible to respond to your customer’s needs immediately, 24/7, 365 days a year. I’m guessing you want to sleep and take some time for your family. I’m not saying the expectation is to be available 24/7, but in an Amazon world, we have to understand our ideal customers and then deliver with the tools available to us.

TECHNOLOGY TOOLS TO USE

To close this out, let me share four potential technology tools you could implement to automate parts of your customer journey.

Social media post scheduling: Social media can be a huge timesuck, but it can become a gold mine of new leads and building trust and familiarity with your company if used and managed correctly. One of the best ways to manage the time needed for social media is to use a post scheduler, like the one built into Facebook (business.facebook.com/creatorstudio), or a third-party version like Hootsuite (hootsuite.com), Buffer (buffer.com), or Later (later.com) to name a few. At Our Success Group, we plan and schedule all of the posts for the week on a single day. Then our time on social media during the week is only limited to replying and engaging with the comments and other posts that keep us “social.”

Call scheduling tools: Once you start engaging with a potential customer, sometimes jumping on a call with them or even a Zoom meeting to discuss the project and scope of the order will help them feel confident in your services. But the frustration of trying to coordinate a time with everyone’s busy schedule can be enough to turn them away. I love using a tool called Calendly (calendly.com),

where I can share a link, and the customer can choose the ideal time for their schedule. There are other alternatives too, like HubSpot’s meetings tool (hubspot.com/products/sales/schedule-meeting), Calendar (calendar.com), and Chili Piper (chilipiper.com), to name a few.

Shipping management systems: Once an order leaves your doors, it is in the hands of the shipping gods. Your customer thinks you’re responsible for the shipping, even if you don’t feel the same. It is an extension of your service, so the more details you can share with them, the better. For this, I love a shipping system called ShipStation. It helps you manage shipping for multiple online stores and various carriers and has full capability to send automated, branded shipping details and provide your customer with a branded tracking page and a delivery notification. The system notifies everyone to be on the lookout and thwart the porch pirates.

Sales follow-up drip systems: Once the order is delivered, it is time to make sure your customer is pleased with the order and ensure they have all of the details needed to care for and use the products. You can put scheduled follow-ups on your calendar, but why not use the power of an email drip campaign to automate this step and then let your customer decide when they are ready to reach back out. My favorite tool is ConvertKit (convertkit.com), but there are many others like ActiveCampaign (activecampaign.com), Mailchimp (mailchimp.com), Emma (myemma.com), and AWeber (aweber.com).

Making improvements to your customer experience and increasing the speed and clarity of your touchpoints with your customer is one of the most fruitful tasks you can do for your business. Not only will this make your customers happier and more likely to purchase again, but it will reduce time with customer service issues. Commit to tackling this project

for your business. Even improving one or two small things will go a long way to greater success. **GP**

AARON MONTGOMERY is certified by New York Times best-selling author Jack Canfield as a Success Principles Trainer and is the co-founder of OurSuccessGroup.com. Aaron has over 25 years of experience with personalized products and small business development and is the co-creator of the “5 Keys of Business Success.” You can also find Aaron co-hosting the decorator’s industry podcast 2 Regular Guys Podcast (www.2regularguys.com). Also, check him out on his podcast channel called Small Business Saturdays (smallbusinessaturdayspodcast.com).



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Trotec Ruby offers users the ability to create text, photo, and graphic elements, and import a variety of file types without a third-party design software. The software comes with an integrated workflow.

866-226-8505
troteclaser.com



FULL LENGTH APRON WITH POCKETS

Kati Sportcap & Bag offers a full-length apron with an adjustable neck strap with buckle, waist-side ties, and two patch pockets. The 7.5-oz, 55/45 cotton/polyester apron measures 22" wide and 30" high.

katisportcap.com

NEW CATALOG OF STAMP MATERIALS

Jackson Marking Products offers a new 36-page catalog of stamp making equipment and supplies. The product includes photopolymer materials, handle mounts, self-inking mounts, Brother Stampcreator Pro components, dating and numbering stamps, rubber molding materials and custom services, art stamp mounts, ink and pads, materials for laser engraving stamps and seals, pocket stamps, and promotional support items.

800-782-6277

rubberstampmaterials.com



MAGNETIC NAME BADGES

NameBadges International offers its Prestige Name Badges, which come in a variety of sizes, border colors, and attachment fittings. All badges measure 2 15/16" long with four height options: 3/4", 1", 1 3/16", and 1 3/8". All badges have a scratch resistant and fade-proof epoxy coating for durability.

800-766-0448

worldemblem.com



LASER ENGRAVER/CUTTERS

Roland DG offers its LV-180 and LV-290 laser engraver/cutters, which allow users to cut out, engrave, or mark on a variety of materials. They are available in two sizes to fit homes, offices, or shops, and they offer fully enclosed operation with non-contact CO₂ lasers and Class 1 safety compliance. The LV series engraver/cutters come with a two-year warranty.

949-727-2100

rolanddga.com





SUSTAINABLE FILMS

Mactac announces its IMAGin Simply Sustainable product line, which is PVC-free and consists of polyester (PET) and polypropylene (PP) films that meet current regulatory standards of the U.S. Consumer Product Safety and Improvement Act (CPSIA). The products are primarily designed for window or glass surfaces.

866-622-8223
mactac.com



TRUCKER VISOR

Sportsman Cap & Bag offers its Richardson Trucker Visor, style 712. Its first shell is made of 60/40 cotton/polyester, and its second shell is made of 100% polyester. It features a 2 1/4" crown with a pre-curved, contrast-stitch visor and adjustable plastic snapback. It is available in eight color combinations.

sportsmancaps.com

PRINTER MANAGEMENT SOFTWARE

Brother DTG introduces its new printer management software for GTX and GTX-pro digital direct-to-garment printers. It gives users the ability to manage multiple machines through a display that shows information such as machine statuses and ink levels. The program monitors the ink inside the printer's pouches and can send the user an email informing them when any pouch is running low.

866-750-2543
brotherdtg.com



X500III PRO

GCC LaserPro offers its new X500III Pro, which is available in 100W, 130W, and 150W. It also comes with a 1.6x beam expander to assist with achieving uniformity of line width and spot size. The optional external interface control board allows users to set up GCC laser machines for communication with external peripherals to form an automated workflow.

909-718-0248
gccworld.com



HEAT PRESS

Insta Graphic Systems offers its Insta 288 Swing Away heat press machine, its largest manual machine with 20" X 25" platens for ease of use with larger substrates and transfers. It can also be used as a sublimation heat press machine.

562-404-3000
instagraph.com

PRODUCTREVIEW

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



EXPRESS DRYER

Lawson Screen & Digital Products

announces its newly engineered Omega Gas Express Dryer. It is a small footprint gas dryer that requires a standard 120V plug-in.

314-382-9300

golawson.com



FASHION PATTERNS

Specialty Materials offers its SpecialtyPSV Fashion Patterns, now available in sticker form. This is available in 12" X 15" sheets and 12" rolls in over 40 different patterns.

855-232-8088

specialtymaterials.com

GRAPHICS BUILDER 15

GraphicsFlow offers its Graphics Builder 15, a collection of stock art, graphic elements, and fonts, allowing for a variety of artwork for users to create. This new edition contains 72 pieces of editable vector clipart, four texture backgrounds, and 40 typefaces to choose from. The package comes with a PDF and online catalog users can use as a collaboration tool with their clients.

800-959-7627

graphicsflow.com



PV+ EMBLEMS

World Emblem offers its collection of sew-on and PVC heat-applied patches. The new PV+ emblem is made of soft rubber and allows ways to create a three-dimensional decoration. It's designed for heavier apparel such as sweat-shirts, outerwear, denim, canvas, and caps, as well as accessories such as luggage, backpacks, and

can koozies. It comes with a low-melt adhesive on the back for heat application or sewing.

800-766-0448

worldemblem.com

UNISEX ORGANIC POLO SHIRT

Royal Apparel Inc. offers the 5057ORG Polo, which is 100% combed ring-spun organic cotton, 4.4-oz/sq yd. Item details include a self-jersey collar, three-button placket, double-needle sleeve and bottom hem, side seams, and satin label. The product is 100% made in the USA.

866-769-2517

royalapparel.com





DIGITAL CONTROLS

Vastex announces digital controls as standard for its AirFlash and RedFlash infrared flash cure units. The controls offer fine adjustment of heat from zero to 100% for repeatable results, diagnostic indicator lights for simplified monitoring, and a high-capacity solid-state relay for long-term service.

610-625-2702

vastex.com



UV-LED INKS

Nazdar offers its 270 Series of low viscosity, low-odor inks that can adhere to flexible and rigid substrates including vinyl, styrene, Sintra, foam board, and polycarbonate.

913-422-1888

nazdar.com

ECO SOLVENT POUCHES

Budget Inks

offers its replacement ink for Roland TrueVIS VG2 printer series. The product has microencapsulated colorants and is available in CMYK + light magenta, light cyan, light black, green, and orange. Users can change their original cartridges with Budget Inks cartridges and continue printing without the creation of new color profiles.

877-636-4657

budget-inks.com



SIGN MATERIAL

Vycom offers its Celtec Woodgrain sign material, which enables print service providers to offer a wood-looking surface to their clients.

800-235-8320

vycomplastics.com



LONG SLEEVE POCKET T

Carolina Made offers its Hanes Work Wear long sleeve pocket T. It comes in adult sizes from small to 3X, it is 5.3 oz, made of 65/35 polyester/cotton, and it is ANSI certified. The product also has reinforced armhole stitching, a left chest pocket with an oversized pencil stitch, a lay flat collar, and a 50+ UPF rating.

800-222-1409

carolinamade.com

GP



PUNCH LIKE A PRO

MODIFIED HOLE PUNCHES SAVE TIME AND EFFORT

Some of our best and most profitable jobs are actually when we produce our smallest products. Simple, repetitive signs and tags, mostly made of light-gauge aluminum, tend to work well for us. But, whether 2" X 2" in size, or five times that large, usually we will have to put holes in our work, and this task may involve a lot of them, which can be tedious, to say the least.

Drilling these holes is out of the question, both for time concerns and the actual finished quality of the product. So, we have several sheet metal hole punch-

ers of a couple of types. We've modified some of them quite a bit so they will do a better and faster job of these hole-punching tasks.

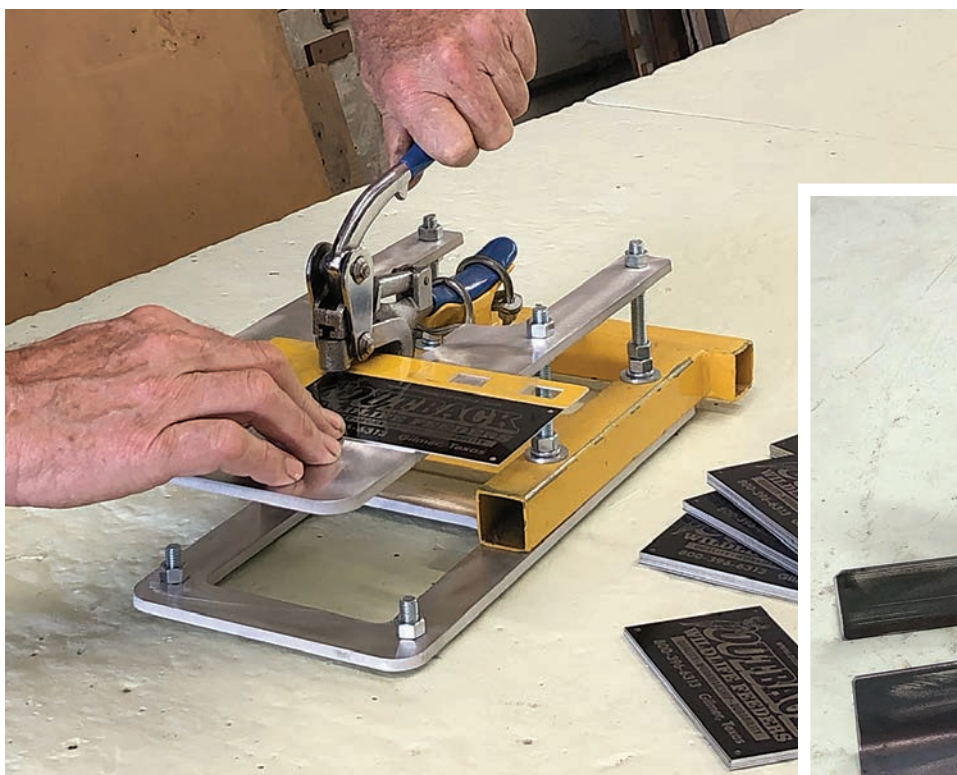
In this month's Shop Talk, we take a look at some of the modified punching tools, including a recently modified one now sporting a machined surface to support the work and the ability to use stops or guides to make repetitive work easy. We'll also review some of the other punch tools we use regularly and have modified in simple yet helpful ways that assist in making signs and tag finishing

tasks easier, faster, and more accurate.

The simplest alteration to basic hand punches is simply making a solid base for them to sit on top of a worktable stably, and it is just a one-handed operation to punch hole after hole. The first set of photos shows a simple version of this made from three pieces of 2" X 2" X 1/8" angle iron. The flat-sided shape of that punch allowed it to be bolted to its base with just two 1/8" diameter bolts 1.5" long.

Other bases we've made required a cradle of sorts made for the lower handle, and the small U-bolts secure the punch to its base.

The tool I recently modified was a basic hand puncher, which already had a tabletop base we'd made for it. But it needed a machined surface



Above: Some of our best jobs are in making our smallest products, but the tedious job of hole punching in small tags and signs must be addressed. **Right:** We modify nearly all our sheet metal punches, and the basic modification is making a base for them so punching becomes a one-hand operation. (All images courtesy Rick Williams)

around the punch jaw that would allow us to use stops or guides for highly repetitive hole-punching tasks. The photos show how we did this, and the result was a much more useful tool. Punchers set up similar to this shop-made version are fairly hard to come by, but we were able to use a very basic and inexpensive punch and turn it into a tool that will prove its worth for many years to come.

Since I had already fabricated a base for this off-the-shelf puncher, adding the work surface around the business end of the puncher was not that hard. In a CAD



The work involved is usually not that complex — simple welding and fabrication.

INTRODUCING

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SHOP TALK



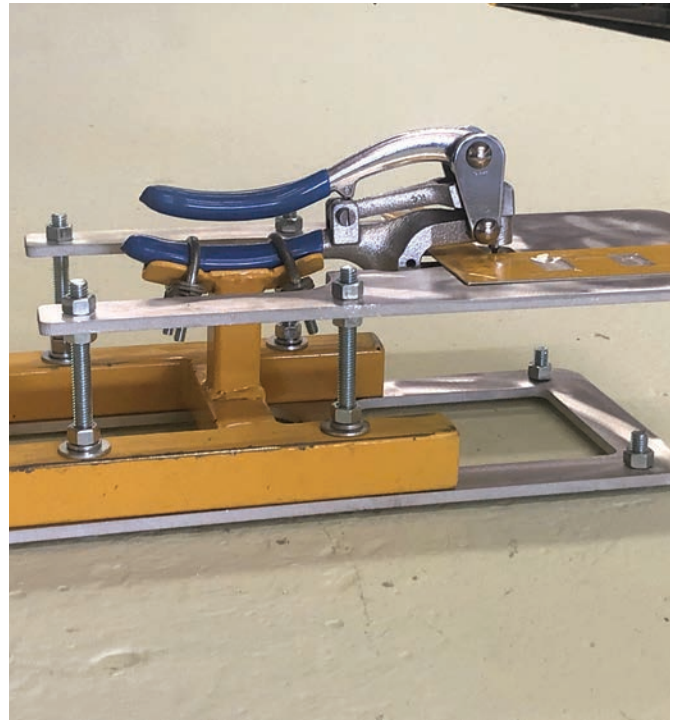
This base was constructed of just three pieces of 2" angle iron.



One of our old tools, which had a custom base attached, was recently customized to make it more useful.



A tabletop to fit around the jaws of the punch, as well as a larger base plate, were made from .25" thick aluminum plate.



The revised punch now has a surface wrapping around the jaws, like a small table that will allow the use of stops or guides.



Once the exact location of the hole in a batch of tags is determined, a guide or stop (here made from yellow .040 aluminum) is taped in place until the job is done.

program, I drew the shape of the little tabletop, allowing for some margin around the jaw, and extending back far enough to use four leveling bolts to adjust the worktop to just the right height.

For the leveling hardware, I used 3/8" diameter carriage bolts for their all-thread style, with double nuts and lock washers. I also added more of a base by making a matching base plate secured to my original mount. These two items were made from .25" thick aluminum sheet, which was plenty strong for the configuration we needed.

As with most tools that we modify to suit our purposes better, immediately after completing the task of improving the puncher, we put it straight to work, punching several thousand holes in an order we had going at the time. The first order completed was an order of 1,200 metal nameplates for a local manufacturer of deer feeders. That order was soon duplicated twice, and being able to quickly punch thousands of small

SHOP TALK



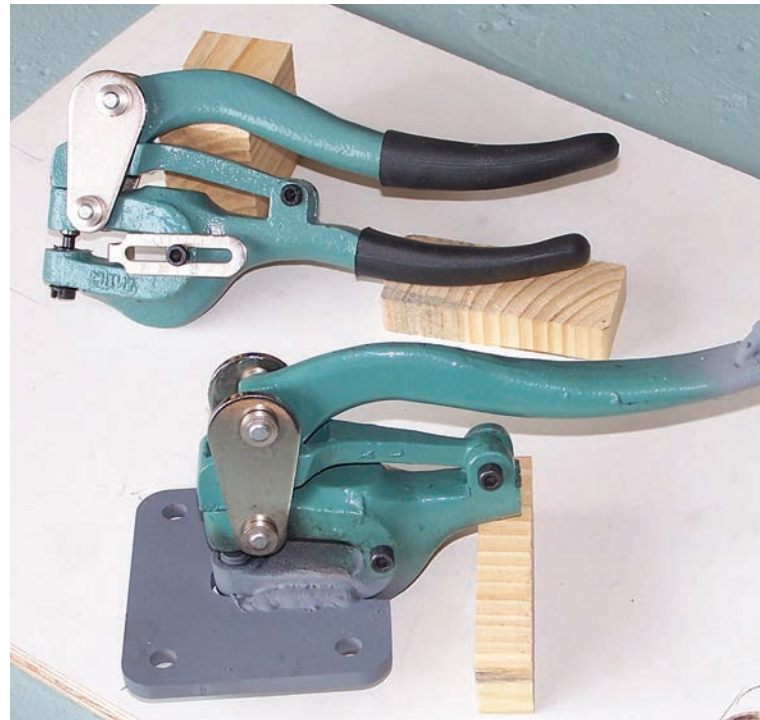
The shape of the guide, with multiple rectangular cutouts, allows extra surface area for the tape to hold the guide better, no reason to clamp or screw it in place.



Our sheet metal punching tools are off-the-shelf inexpensive models before customizing.



We made this two-hole punch for real estate and oilfield sign blanks several years ago.



A matching pair of sheet metal punchers were modified with base plates and attached to a small, special worktable.



corner holes in tags with an exacting hole placement was absolutely essential.

To line it up, one hole is placed precisely in the corner of a sample tag, and the tag is left in the jaws of the punch. Then a guide or stop is put in place around the test tag, and in this case, merely taped in place with packaging tape. We made the stop perforated with rectangular holes, giving lots of places for the tape to contact the work surface and secure the stop very well. After securing the stop, one can just start punching and not stop until the task is done — no measuring required.

All our smaller punches are common and easily available, but virtu-

continued on page 126

Above: This unit is spring-loaded to pull the punches back out of the metal, but with one swift foot stomp, it puts two holes, accurately spaced, in a sign blank at one time. This unit has worked virtually every day for a year. **Right:** One other type of punching we rely on is rounding corners both small and large, and these two punches are typical. The larger one was made by Accu-Cutter.





Let's Talk Shop

Application Tables

INVESTING IN EFFICIENCY

BY CHARITY JACKSON



Choosing to add a piece of equipment is an investment. Making that investment means the equipment should serve to create a profit for you, add or improve a service, or make your shop more efficient.

We've bought numerous digital printers over the years – choosing to buy a new one when the older one starts having costly repairs or when the technology improves. We purchased a laser engraver when we wanted to expand into laser-engraved plates for the solar industry. A separate cutter was purchased to contour cut on a machine other than our printer, making our print/cut process more efficient.

Buying an application table was a different investment. We couldn't print wraps or engrave plates – machines that give us a direct profit – but like the separate cutter, we could be more efficient with our labor because of a table.

Because the return on our investment was less obvious, we debated it for a few years before taking the leap. Hands down, buying the table was one of our best purchases.

ONE PERSON

We run a pretty busy shop with very few people. My husband and I have a sign production background rather than a sales/management background, so our approach to sign shop ownership has been very hands-on.

This background has worked well in many areas as we have a good understanding of ways to improve production since we're entrenched in it alongside our employees. We noticed that the application of large signs on the table was inefficient.

For years we ran our signs through the laminator to apply them, and this works great. You peel back the edges of the graphics or tape them to the substrate and run them through to speed application. This doesn't work as well for larger signs since the substrate is unwieldy and difficult for one person to maneuver, hold up the end, and peel back the backing paper as the graphic is run through.

So, even though we didn't have to apply the graphics by hand, it usually required two people to run a 4' X 8' sheet through the laminator. On the other hand, applying a large sign on an application table is much more efficient.

Once the substrate is laid on the table and cleaned, the graphics can be positioned in place. No taping or moving the substrate and graphics is required, risking losing placement. The pressure roller is simply lowered down, and the graphics are applied. The whole process takes less than five minutes for one person to complete.

FEATURES

I am not an expert on application tables or how their features have evolved over the years, but I do know that there were features we



Opposite:

Despite the price, the convenience and efficiency an application table provides makes it worth the investment. **Left and below:** One person can apply graphics to a 4' X 8' substrate in a matter of minutes with no squeegeeing and no bubbles. (All images courtesy Charity Jackson)

were looking for when deciding to invest in an application table. Ultimately, we chose the ROLL-X Multipurpose Applicator by ROLLSROLLER. The table met the needs we had and was the right choice for our shop. I would recommend doing your research in the tables on the market and compare the features included.

Here are the features that our table has that have been either essential or simply handy. We like to say that our table is like having another employee – one that doesn't complain about the workload and never calls in sick.

MASKING

Our table includes a roll holder glide beam that is used for applying masking tape. We order 54" wide rolls of application tape and mount it on this bar. One person can mask graphics 52" wide by 12' long in seconds, with even pressure.



Right and below: The application tape roller makes it easy for one person to mask large panels of graphics.



For more access, the roll holder can be removed. Once the beam is removed, a large knob on each side is loosened, and the brackets can be slid off.

Our table butts up against a wall on one end. On this wall, we've mounted an application tape holder that my father-in-law

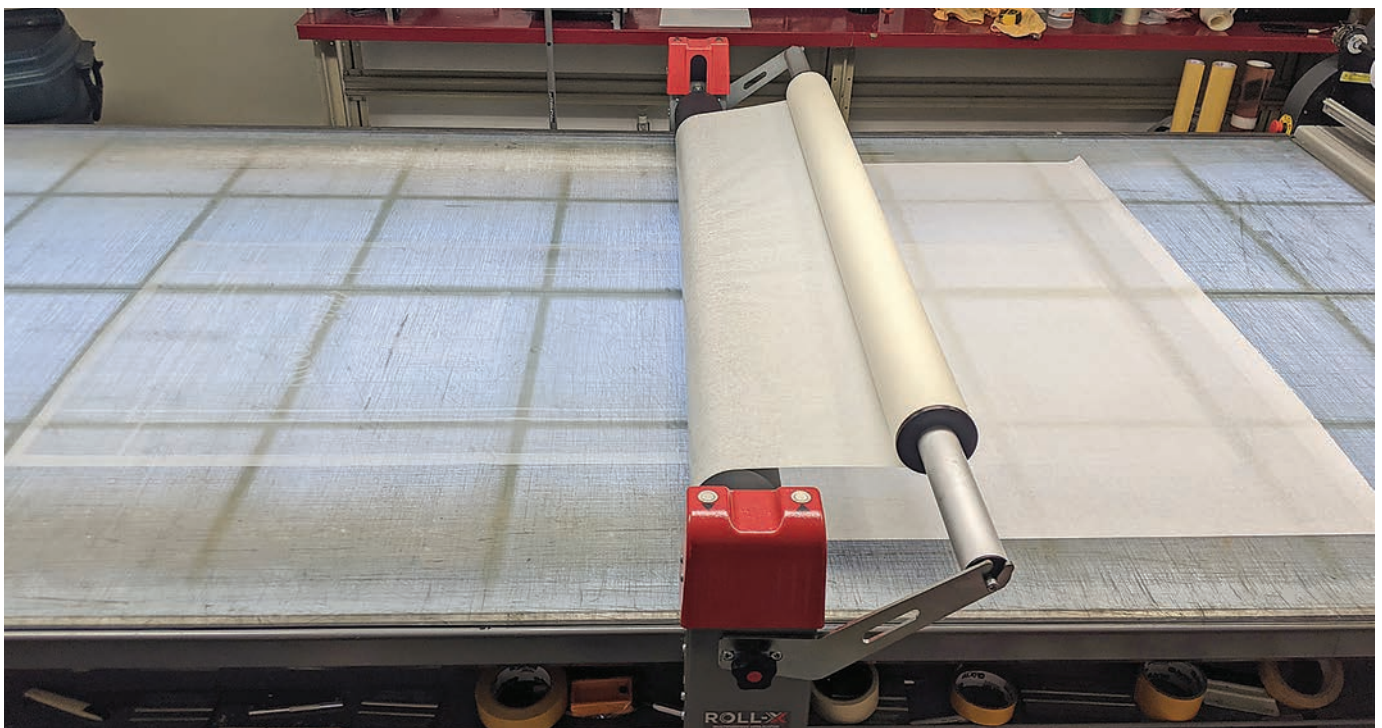
built years ago. On this bracket, we keep 15" and 24" rolls of application tape.

For smaller graphics requiring masking, we pull the mask off these wall-mounted rolls. The glide beam can then be slid to the end of the mask, lowered using the button controls, and then slid toward the wall.

Again, even pressure and no squeegeeing.

HEIGHT CONTROL

I'm going to mention two completely different features under this heading. The first is the height control under the roll beam itself.





Left: The backlight on the table makes it easier to cut weed borders and align layers of graphics.

Below: The long-reach cutting tool allows you to cut mask and graphics across the width of the table.

When we used our laminator to apply graphics to a substrate, we were sometimes limited by the space available under the roller. The application table has plenty of clearance under the roller, allowing us to place nearly any substrate thickness on the table and apply graphics.

The table also allows us to adjust the height of the table surface itself. We can lower the table as low as 33", making it convenient to sit in a chair to work at the table. We can also raise the table's surface to 42", making working on the surface more ergonomic.

The legs can also be adjusted manually or electrically (depending on the model you choose) for leveling. Lowering the table all the way down also allows the wheels to make contact with the floor, and the table can be easily moved around.

LAMINATING

While one end of our table is against the wall, the other end has the laminator positioned against it. We typically keep the height of our table in alignment with the feed out at the back of the laminator.

Our printed graphics are fed through the



laminator, and the laminated graphics slide out right onto our work surface. Guiding the graphics from the printer to the drying area to the laminator, right onto the work surface, keeps the process efficient.

If you don't have a separate laminator or want to laminate on the application table itself, you can do that as well. Because we

do so much cutting on the tabletop, we don't feel that our cutting mat is smooth enough for laminating, so we do it through our laminator. But, lamination with your application table is an option.

continued on page 126

The Magnitude of the Magnet Market

DEMAND FOR MAGNETIC MATERIALS GOES FAR BEYOND OUR INDUSTRY



BY STEFANIE
GALEANO-ZALUTKO

Hiccups in the supply chain are not unique to a global pandemic. Throughout history, natural disasters, socio-geopolitical threats, and panic-driven demand (i.e., the toilet paper shortage of 2020) have presented varying degrees of risk and volatility within distribution. Businesses plan accordingly for small and large-scale disruptions during such events.

What is exceptional this time around: no industry has been left unscathed from the far-reaching disruptions associated with COVID-19 – the magnetic materials market included. Adding insult to injury,

there remains no clear timetable for achieving normalcy.

NOT JUST A GRAPHICS PROBLEM

The global magnetic materials market, which includes hard, semi-hard, and soft magnets, is forecast to reach \$143.87 billion by 2027 – with the permanent magnet market alone (Neodymium Iron Boron Magnet, Ferrite Magnet, and Samarium Cobalt Magnet) expected to exceed \$54.1 billion by 2026.

Such staggering data reflects the ubiquitous presence magnetic materials have in everyday life, from personal electron-

ics, motors, and generators to medical devices and data storage equipment. However, long before 2020 turned the world topsy-turvy, it was clear the rate of global consumption was progressing at an alarming rate. After all, high demand for faster transmission of data, electric vehicles, and even development and modernization of infrastructure all have a heavy hand in future growth projections.

When the pandemic hit full force, the world seemingly stopped dead in its tracks as factories halted all operations and sent personnel home until further notice. As a result, magnet producers had relatively



MAIN MAGNETIC MATERIAL FAMILIES AND BONDED VERSIONS:

- Ceramics or Ferrites (Fe_2O_3) consisting of about 4 main sub-grades with C5 and C8 being the most popular
- Neodymium (NdFeB) consisting of 7 sub-grades with differences mainly in maximum temperature exposure
- Samarium Cobalt (SmCo) consisting of 2 main sub-grades, so-called 1-5 and 2-17
- Alnico (AlNiCo) consisting of about 4 main sub-grades
- Bonded versions of all of the above which can be injection or compression molded

SOURCE: Alliance LLC (<https://allianceorg.com/wordpress/wp-content/uploads/2019/07/World-Magnet-Supply-Overview.pdf>)

low stocks of raw materials, especially in the summer period. By the time production kicked off again, magnetic materials demand was so high across major industries, like technology and automotive, that smaller industries such as graphics producers continue to feel the squeeze.

For the graphics industry, magnetic materials are integral in sign making, promotional items, sheeting, industrial labeling, POP displays, tools, and much more. With supply down and demand higher than ever, graphics professionals are instructed to remain vigilant to the usual consequences in these dodgy economic

situations: difficulty sourcing product, freight and transportation challenges, inflation-induced prices, and, inevitably, inventory availability.

THE MANUFACTURING BOTTLENECK

Manufacturing executives point to highly interconnected bottlenecks as serious pain points for U.S.-based manufacturers and distributors, including record-long raw material lead times and rising commodities prices.

Since China mines approximately 85% of the world's rare earth ores essential in most magnet products, most U.S. sourcing

is conducted overseas under license. The dependency means “distributors are only as good as their Asian suppliers,” according to Monroe Engineering, an ISO-certified global industrial manufacturing company specializing in several vertical markets, including magnets.

Part and labor shortages both domestic and abroad are limiting factory production and hampering growth potential as well. Plus, those grappling with increased raw material costs and key component shortages likely find themselves in another precarious situation: auction-style bidding wars to obtain space on shipping vessels,



leading to extreme freight costs and increased transport times across every leg of the shipment of goods.

According to the Drewry World Container Index, the cost of sending a container from Asia to Europe is nearly 10 times higher than in May 2020, while the cost from Shanghai to Los Angeles is more than sixfold.

Monika Kalenski, CEO at MEK Magnet, an automotive aftermarket manufacturer specializing in high-energy rubberized magnets and gel panels for Jeeps, said one supplier's shipping quote went from \$3,000 for a full container to more than \$20,000.

Regardless of intent, Kalenski said U.S. tariffs did not help the situation. "It's almost impossible to find something that is

truly 100% U.S.-made in a global economy," she says. "Some component almost always comes from overseas, so really everyone is affected."

Ongoing container shipment shortages and port congestion are expected to last through the fourth quarter and likely into mid-2022. According to industry professionals, the entire dynamic is multiplying various costs to unsustainable levels and applying tremendous pressure to accurate financial planning and profitability.

HOLDING THE LINE ON PRICES

While the situation prompts many exporters to raise prices or cancel shipments altogether, others are holding firm — absorbing the surplus costs to help maintain stability within their respective markets.

"We haven't increased our prices, even though our costs have gone up," stresses Kalenski. "We're doing our part to ride this out. So far, customers haven't had to cover any of the shortfalls."

Now, perhaps more than ever, leaning on reliable supplier partnerships is critical for doing business and staying in business. Regardless of supply chain pitfalls, Kalenski said MEK Magnet is working double-time behind the scenes to guarantee customers receive the same great quality and value.

"We're very diligent with the materials we use — our finished product depends on it," says Kalenski. "So, when I noticed a decline in quality, I quickly transitioned to a new supplier. Even though we were told nothing changed, we're the ones working



- ## TIPS FOR SUCCESS
- **Accept pre-orders** ahead of the shopping season for easier demand planning.
 - **Incentivize behavior** that offloads strain. For example, ordering online (you don't need to waste time on the phone) and picking up in-store (you don't need to handle shipping).
 - **Educate consumers** early about changes they may experience this year. Start telling clients they should be thinking about holiday cards/announcements/gifts earlier than usual.
 - **Use your data and business intelligence** tools to predict sources of delay across your supply chain and be transparent with your customers.
 - **Get ahead of inventory planning** and allocation. Create a communication strategy that is early and delivers the right messaging.

with it every day, so we know — we can tell, and we made the switch.”

For Master Magnetics Inc., a manufacturer and distributor of magnets and magnetic devices based in Colorado, continual communication with customers is key to ensuring they have the most up-to-date information and can react accordingly, says Jeff Calomino, magnetic solutions sales manager.

“With the wide range of products and services we provide, we are constantly looking for creative custom solutions to meet our customers’ needs,” he says. “For example, one of the most valuable services we provide is our custom cutting and slitting capabilities for magnetic flexible and receptive material. Recently, because of these abilities, we were able to use prod-

uct that was available and complete a big job for a new customer in just a matter of days. This job required us to make an exceptional number of cuts of various widths and lengths. In the end, our customer was able to meet a very tight deadline and came in under budget resulting in a very satisfied client.”

STAYING AHEAD OF THE GAME

As manufacturers and distributors work through various supply chain constraints, global manufacturers like Magnosphere recommend customers place open orders as soon as possible to obtain a final locked price and minimize the effects of fluctuating cost increases.

Likewise, if product materials need to be substituted, then maintaining open

lines of communication is key. A graphics shop must know if a substitute product is compatible with their printers and ink or stands up to consumer use like the previous material.

Just as graphics professionals expect transparency from manufacturers and suppliers during these unprecedented supply chain woes, they must be equally transparent with consumers about realistic turnaround times and what can be done with available materials. **GP**

STEFANIE GALEANO-ZALUTKO is the president/CEO of Zalutko Business Services of Central Florida. She can be reached at szalutko@zalutkobusiness.com.

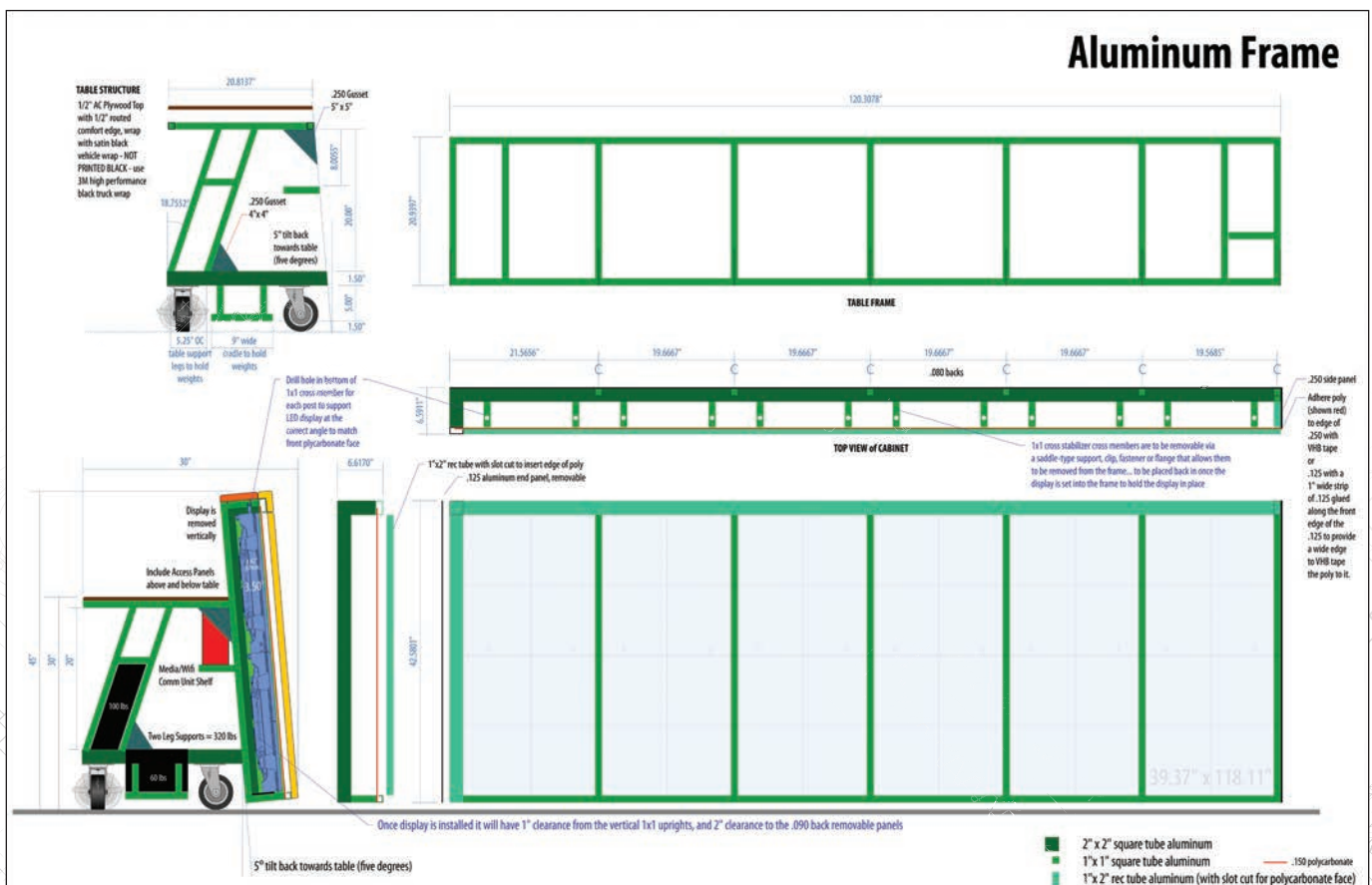
Think Like an Engineer, Design Like a Creative



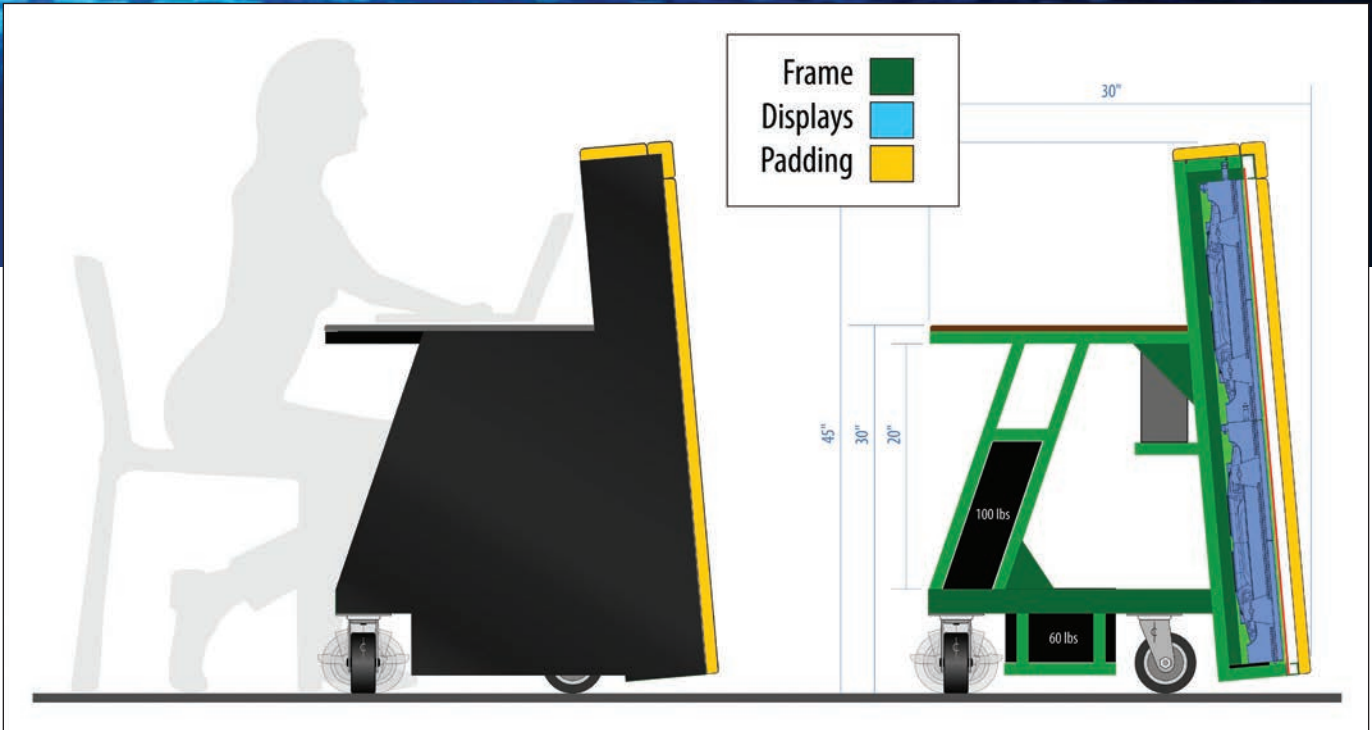
CREATING A DISPLAY TO HOLD UP AGAINST WEAR AND TEAR

BY MATT
CHARBONEAU

I received the call from James Alfaro of Alamo Sign Solutions in San Antonio, Texas, and he had been given the opportunity to bid on redesigning and fabricating the rolling display boards used along the courtside for the San Antonio Spurs. Chris Schriedel, production manager, would be the one instructing the fabricators on what to do. The challenge: time, design, and fabrication. It was a tight turnaround time, the old display was all we had to work from, and the new structure needed to provide options for more electronics and com ports for use during the game.



In this drawing, I used color to help visually explain the various parts and pieces needed. The fabricators later determined that the lower weights were not needed. (All images courtesy Matt Charboneau)



Here is the original, initial side view concept, with a detailing of the display components.

Leg Supports with Casters and Weights

TABLE FRAME
 1/2" AC Plywood Top with 1/2" routed comfort edge, wrap with satin black vehicle wrap - NOT PRINTED BLACK - use 3M high performance black truck wrap

20.8137"
 250 Gessert 5'x5'
 18.7553"
 1x1 Horizontal Brace for weights
 250 Gessert 4'x4'
 8.0053"
 20.000"
 1.500"
 2.000"
 1.500"
 8.25" OC table support legs to hold weights
 9" wide cradle to hold weights

8.5161"
 31.5000"
 1.9355"
 6.500"

Free-spin
 Locking caster is shown at the end of the wheel support. 4 locking casters may be used.
 Mirror image the left and the right wheel caster supports as shown here.

<https://www.chapelsteel.com/weight-steel-plate.html>

NOTE: The weights shown, and their dimensions, were calculated using the on-line tool that allows the fabricator to adjust the size of the weight.

WEIGHT OF A STEEL PLATE A

Please enter values then click on Calculate.

Length (inches) =

Width (inches) =

Thickness (inches) =

Weight (pounds) =

All weights are theoretical, actual weights may vary.

WEIGHT OF A STEEL PLATE B

Please enter values then click on Calculate.

Length (inches) =

Width (inches) =

Thickness (inches) =

Weight (pounds) =

All weights are theoretical, actual weights may vary.

The wheels were a big deal. The weight of the display unit was calculated, and the appropriate wheels were used.



This is the framework, prior to primer and paint.



Once the frame has primer, it is prepped one last time for final finish.

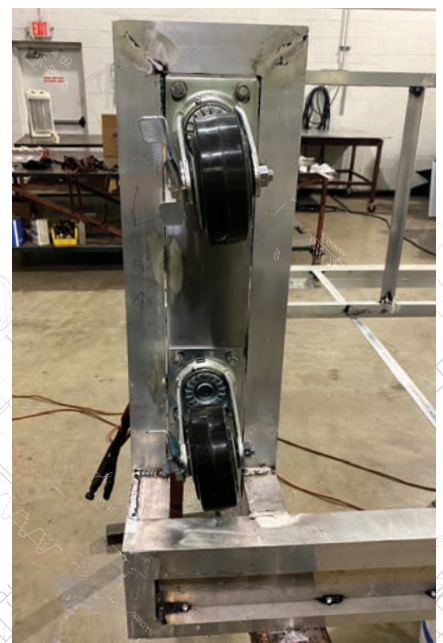
The opportunity: design a new display that provides all the features the client needed, with less weight, less materials, less cost, and better wheels.

Following, I explain the steps I took in creating this new display structure. Check out the photo of the finished display now used by the San Antonio Spurs.

WHEN YOU'RE NOT AN ENGINEER ...

James and I have worked together on hundreds of 30' and 50' pylon and monument sign projects since about 2006, but never on a project like this. In reality, this is nothing more than a horizontal monument sign with specific details that hold the display in place and provides a place for people to sit behind.

The previous units were designed and fabricated using steel, which created its own set of mechanical issues. They needed something much lighter with an improved roller/wheel system, a better desk area with improved stability, and a lot of options for video and audio com ports that link the stats people at courtside with the reporters in the booth. When rolled into place along the



The new wheels were heavier and better located for balance.

court, it had to be strong enough to support a player who might use it as a stepstool to save a game ball from going out of bounds.

So, while we designers are normally dealing with height, centroid, face, and base square footage for a 30' monument sign, in this case, I had to shift my focus from the wind load stresses of a vertical sign to the horizontal strength to support extreme, occasional downward forces. I had to call upon my “inner-engineer” skills I acquired through years of visual osmosis of other fabricated structures.

I had to take full ownership of the concept — “design for optimal functionality and efficient use of materials and costs” — and it would prove to put my design-engineer abilities to the test. I am not a licensed structural engineer; however, over the years I have taken notice of hundreds of structural projects and have created shop drawings for hundreds of 30'- and 50'-tall monument and pylon sign fabrications. I watched, looked, investigated, and paid attention to all that I saw in order to wrap my head around the term “centroid” and how wind load affects shear strength and tensile strengths of materials.

There are many basic core questions that most electric sign designers ask themselves when looking into creating something new and perhaps out of their comfort zone. Here are three that directly relate to this project:

1. Why is steel used in some areas, whereas aluminum is used in others?
2. Aside from the weight difference, how must aluminum be used so that it's as strong as steel?
3. Round pipe vs. square tube vs. I-beam vs. U-channel vs. angle — what are the uses, pros, and cons?

Frankly, I can't give you the end-all, be-all answer to any of those three basic questions. Like I said, I'm not an engineer, but I can observe and learn and mimic what has been engineered and installed by others.

While I was out running errands, if I found a new sign being installed, I took the time to stop and watch the installers, standing way back and taking notes, just observing how things were done, how the



Here is a good example photo of the wheels on the display unit.



Here you can see the backs of the display units after they were installed.

larger sections were installed. I compared notes on why one 50'-tall pylon sign on the west end of town required a different footer and only one pipe than a similar sign located closer to the lake that needed two and a huge spread footer.

My point is this: simply paying attention to what has been done by others is a free way to learn how the basics of engineering affect which materials are used and how they are attached to one another. Gather, watch, observe, collect, hoard, and dissect every engineering drawing you can find and learn from them. (*Editor's note:* Always pay attention to codes, zoning laws, and other factors. If you don't have the qualifications to install something, seek the proper channels.)

STEPS TO THE NEW DISPLAY

Now that the background is explained, and it's clear that I am not an engineer, here are the steps I took to design the new rolling display frame.

I realized that the existing design had a couple of great concepts that it didn't implement well. One of those concepts was the top access panel to get to the EMC displays. It was a good idea in theory, but the reality of this unit being accessed from courtside would never realistically happen, hence that feature was not able to be utilized during a game to fix an issue with the EMC. I changed this completely.

I also used scaled drawings, and sketches of people sitting, standing, and using the structure to determine the correct height for the table, the top, the width, and the visual opening that butted up against the court surface.

The wheels on the existing structure failed. I made sure to use a beefier, larger locking wheel. The combined weight of the EMC panels was over 300 pounds; therefore, the frame had to be designed to support this weight, but also prevent the whole thing from flipping forward. It required some creative engineering and counterweights.

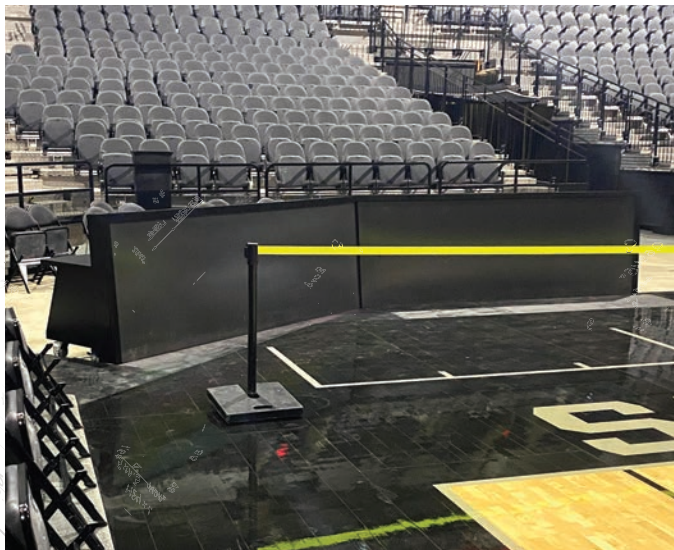
There were no places for branding, so a panel was created on each end for the team's logo or for other graphic messages (Team emblems had not been installed at the time of the photos). This unit's previous padding attempts did not hold up as planned. The new pads created withstand the rigors of blood, sweat, and beers.

The structure required a lot of options for current and future audio and video ports, compartments, connectors, and adaptors — this new design provides a plethora of choices. We chose to create a static attachment rather than spend time working out the details of an articulated connection point.

Aluminum is a lot lighter than steel. Aluminum is a lot weaker than steel. Planning for a design where aluminum must perform like steel requires gussets, braces, heavy wall aluminum, and a lot of careful planning. How do you simulate aluminum failure without engineering it?

Think of it this way: if you are holding a box straight out from your chest, your arms would get weak, so you may want to place a support under your elbows to assist your arms. It could go from your elbow to your waist at a 45-degree angle, providing the support your tired arms need.

That same idea holds true for designing an aluminum frame.



Top: The frame shows the open cavity where the EMC displays are installed. **Above:** The display units in place prior to game time.

Adding braces, gussets, and supports can help aluminum act like steel.

However, regardless of how much you plan for the worse, having a player jump up onto the display and it surviving and thriving with no ill consequences to the display units, is when you know you did it right. And we did! **GP**

MATT CHARBONEAU started his career in the sign industry in 1985 as Charboneau Signs. In 2017 he published the Pre-Sale Sign Survey Field Guide. In 2019 he started Storm Mountain Signs and the Sign Design Institute. Contact him at Matt@stormmountainsigns.com; www.stormmountainsigns.com; and 970-481-4151.



AUTOMATE!

TIME-SAVING PUSH-BUTTON SOFTWARE TECHNIQUES

Manually repeating a command to perform the same task several times in a computer program is tedious. Now, I'm not a particularly lazy guy, nor am I obsessed with robots or auto devices, but within workflow it's nice to be able to eliminate the boring, time-wasting process of performing the same task repeatedly. At this stage of the game the expectations we have of our computers and software are not unreasonable, and an important aspect is for the software to easily repeat a series of commands.

ACTIONS

A saved command or sequence of commands is called an action. An action can be automatically applied with the click of the mouse. Actions, no matter if they are simple with two or three commands in the sequence, or complex with dozens of commands, can be recorded, saved, loaded, and applied to individual images. Actions also can be applied to groups or "batches" of images.

Automatic commands can be run directly from Adobe Photoshop, Illustrator, and Bridge. They are also available in Corel software.

from the window menu. (Fig. 1) When the panel is opened, the default actions are displayed. You may have to click the little arrow to expand the folder. These are actions that are bundled with the software and are useful for various tasks, from making wooden frames to creating vignettes to converting color modes. It's simply a matter of selecting the action and running it by clicking the play button in the actions panel.

CREATE AN ACTION

Open the document that you want to work on. Before you can record an action, you must create an action set — a folder where the action resides. Click on new set in the panel options menu. Name the set. Click on new action from the same menu and name the action in the new action dialog box (Fig. 2) then click record.

Be careful! If the action is being recorded, the panel will record every command that you perform. You'll see a little red dot on the panel when the recording is being made. With each command that you apply its name appears as a separate

DEFAULT ACTIONS

Since creating an action differs slightly from program to program, I will use Photoshop actions as an example because it is easiest. Rest assured, except for the terminology and the location of panels, the process is essentially the same.

An action is created by accessing the actions panel

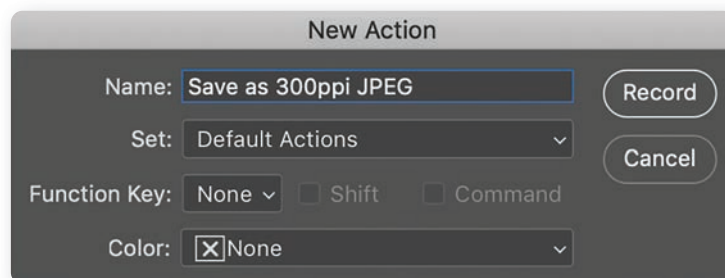
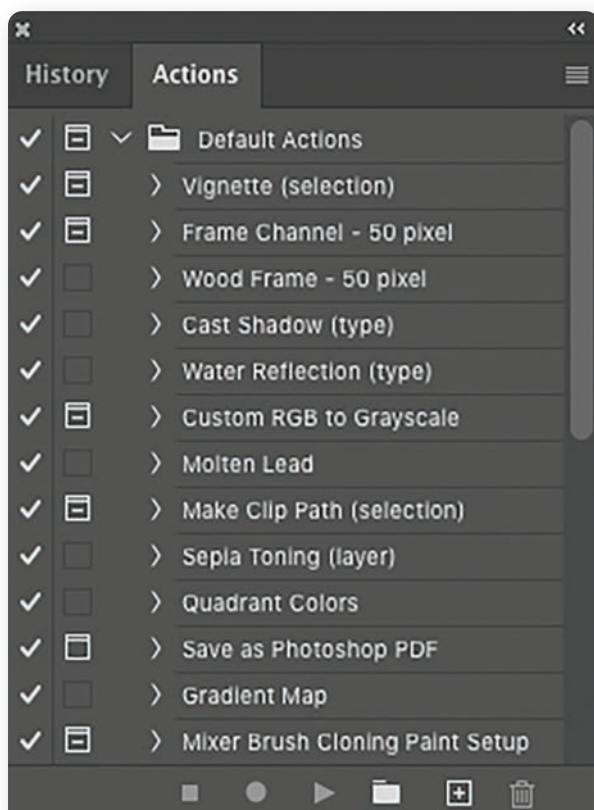


Fig. 1 (left): An action is created by accessing the actions panel from the window menu.

Fig. 2 (above): Click on new action from the same menu and name the action in the new action dialog box then click record.

item in the list. When the commands are completed, click the stop recording button (the little square).

Actions don't record changes to the preferences or certain manual tool operations, like painting, cloning, or healing.

APPLY THE ACTION

Obviously, the main purpose of actions is to repeat a command or series of commands. To run the action on a new image, open the image and select the action in the actions panel. Click the play but-

ton. The action automatically applies the commands listed in the panel in sequence to the new image.

MODIFY THE SETTINGS

Because the settings often need to be re-adjusted to achieve the desired results on a different image, you can automatically stop the action during the process of applying it and make adjustments.

In the actions panel, click the icons in the second column next to the command. These are on/off dialog icons that pause

the action and present the command's dialog box. After modifying the settings, click the dialog's OK button to proceed and the action will continue to run.

AUTOMATIONS AND SCRIPTS

Graphics software packages also contain script and automation features that trigger a JavaScript when opening, saving, or exporting a file. Some scripts are provided with the program, (Fig. 3) or a command can be made that triggers a custom script that you have written. Writing scripts



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is not easy and requires knowing a scripting language. If you're interested in writing scripts, application-specific guides will help you learn the process.

In the commercial large-format printing environment there are a lot of automated tasks that can be made more efficient with actions, automations, and scripts. It might be worth the effort to learn basic scripting or perhaps hire a programmer to write several scripts of the sequences you use most often. At the very least start by compiling and saving actions that you can apply to images to streamline your workflow.

Let's look at a couple of automations that in my opinion are most useful. Automations not only obviate repetitive commands; they also can potentially enhance the quality of your images. They reside in the file > automate menu waiting to be discovered. You can also find some of them in Adobe Bridge.

BATCH ...

Automations come in a variety of forms. Looking at the file > automate menu (Fig. 4), you'll see 10 automations. Batch, at the top of the menu, applies an action

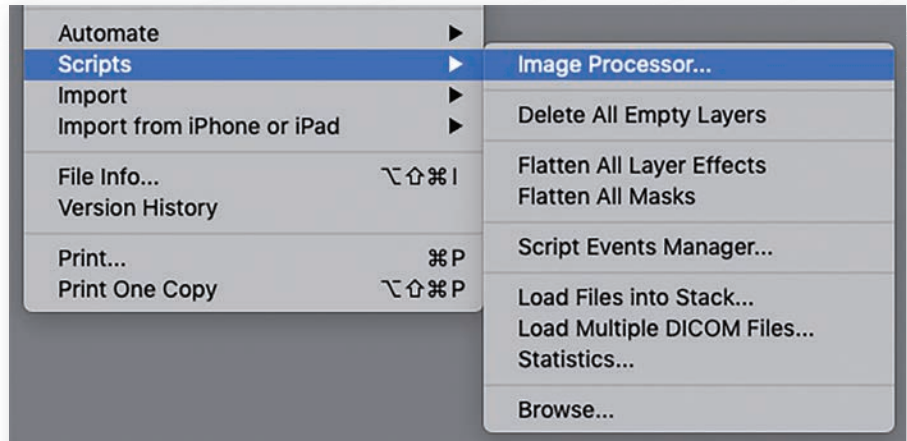


Fig. 3: Graphics software packages also contain script and automation features that trigger a JavaScript when opening, saving, or exporting a file.

to several images and is a fantastic time-saver. The batch dialog box specifies the action, the source folder (where the images are stored), and the destination of where the new processed images will be saved.

I can't stress enough how learning to use this feature can lighten your workload. As an example, I'll use my The Digital Eye writing experience to show you how batching lets me quickly format images for publication.

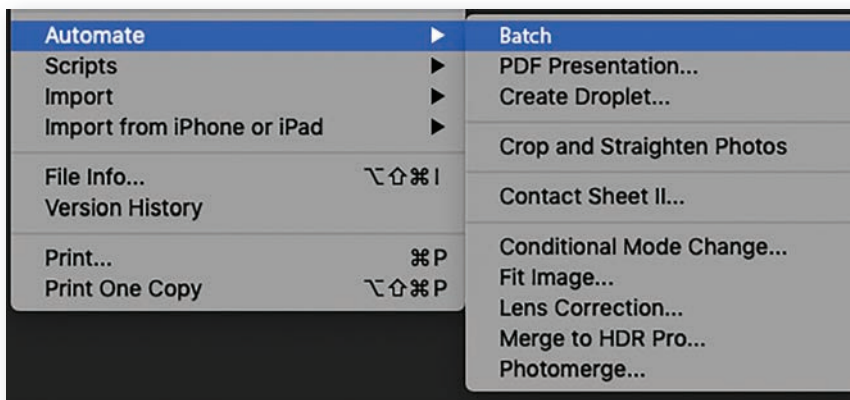


Fig. 4: Looking at the file > automate menu, you'll see 10 automations.

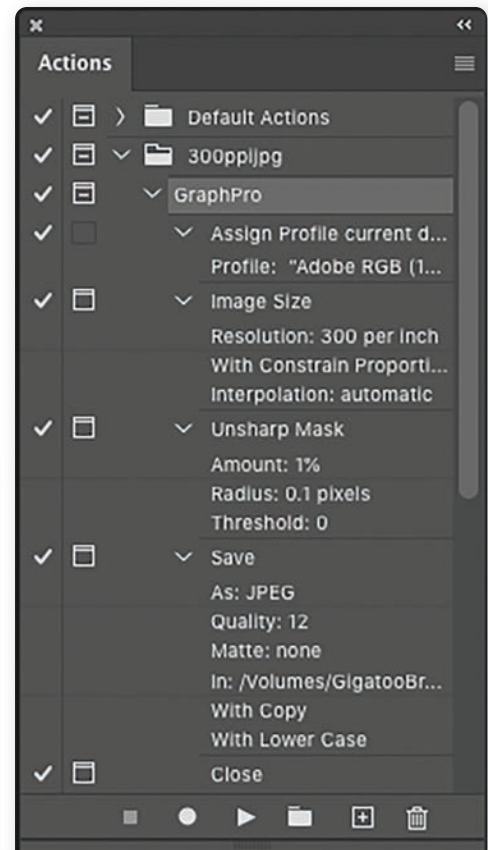


Fig. 5: The actions panel with the recorded sequence.

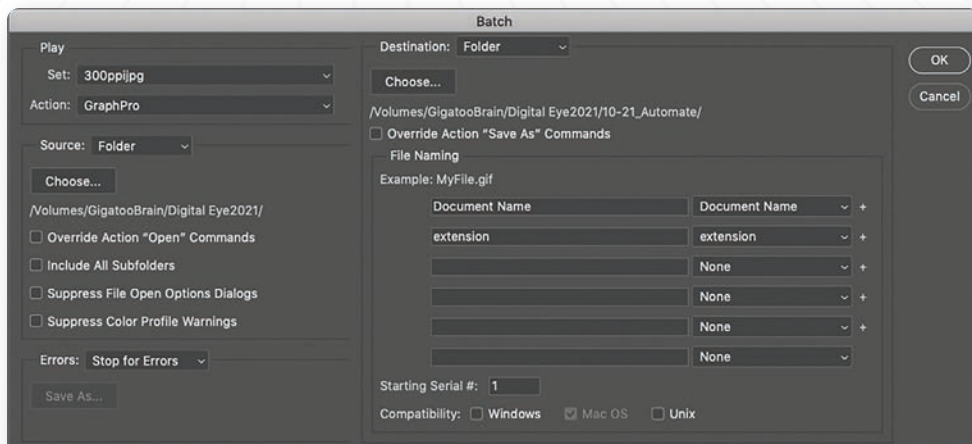


Fig. 6: The batch dialog box where the action and the source and destination files can be designated.

I submit an article such as this one each month to *GRAPHICS PRO* magazine. Often, there can be as many as 20 illustrations for each article. The publisher, National Business Media, requires images to be 300 pixels per inch and 5-8" wide and saved in JPEG format for publication to print. The first step is to configure one image while recording an action.

I begin by making a set (a folder containing the action). I create a new action and begin recording. I first apply the Adobe RGB 1998 profile to the picture. Then size

it to the specifications. If the image is a screen shot, I usually sharpen it to tighten it up a bit. Next, I save it to a specific location in JPEG format. Finally, I close the image. Then, I stop recording. Fig. 5 shows the actions panel with the recorded sequence.

I place all my screen shots, and any additional images into a single folder that will be the source folder. I create a destination folder where the altered images will ultimately be saved once they are processed. I choose file > automate > batch (See Fig.

6). I choose the action, the source file, and the destination file. I click OK. Then I go into the kitchen and make myself a grilled cheese sandwich and pour myself a beer. When I return after lunch, all the images are neatly placed in the destination folder ready to be sent to the publisher. All I did was assign a few specs, press the mouse button, and the automation did all the work for me.

DROPLET

A droplet is an icon that sits on your desktop (or anywhere else) that triggers an action simply by clicking on it. Another great time saver, a droplet is a push-button image editor. The dialog box (Fig. 7) is similar to the batch dialog with a few exceptions. Designate where you would like the droplet to reside, specify the destination folder where the edited images will be saved, make any necessary changes to the naming conventions, and click OK. The droplet will appear. Click on the droplet icon and voila! The new revised images are saved to the destination folder.

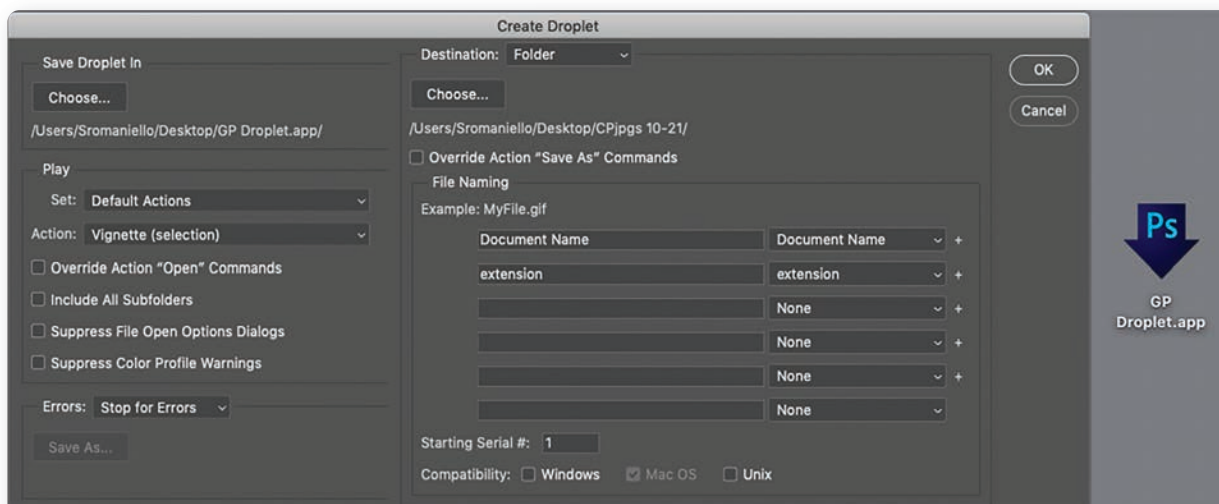


Fig. 7: The droplet dialog box designates the destination folder and where the droplet resides.

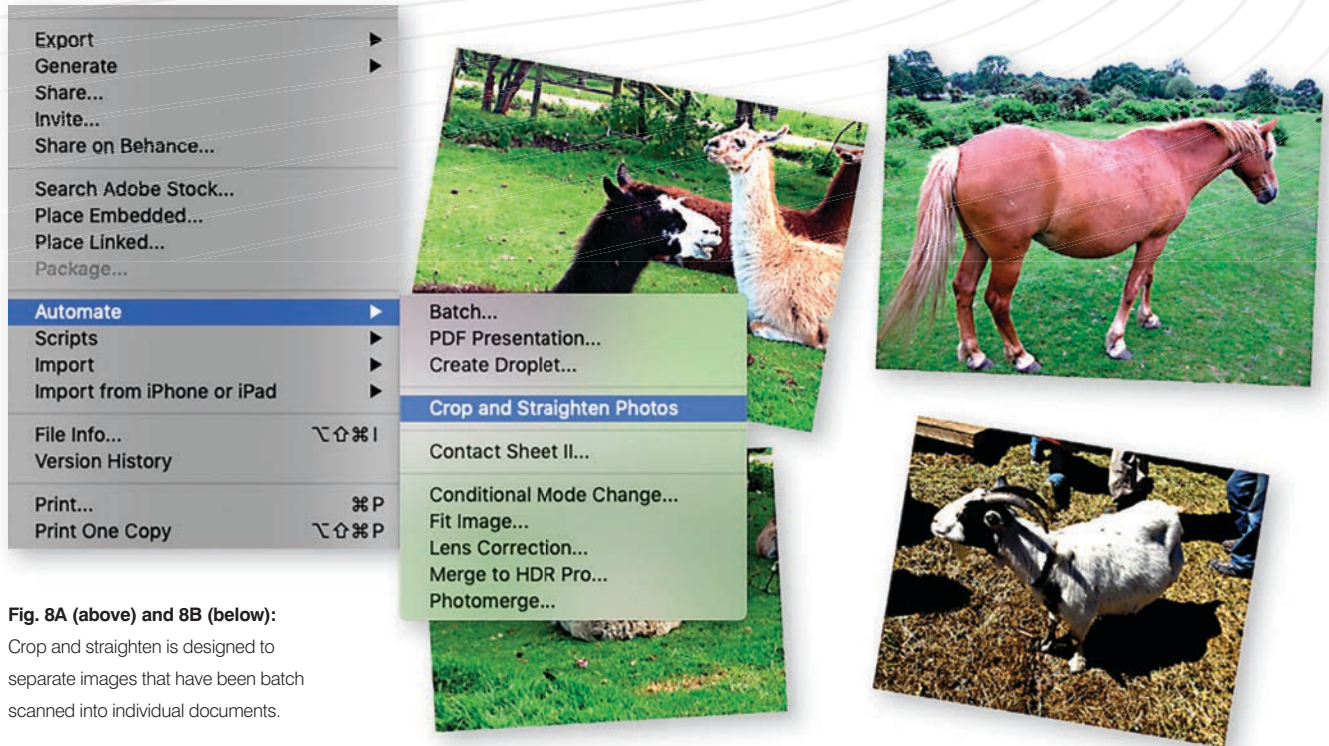


Fig. 8A (above) and 8B (below):
Crop and straighten is designed to separate images that have been batch scanned into individual documents.

CROP AND STRAIGHTEN

Here's another big timesaver. This automation is designed to separate images that have been batch scanned. Lay your multiple images on the scanner bed face

down and scan them. Open the file in Photoshop. Choose crop and straighten from the automate menu. Bingo! Done! All the images are separated into different files (Fig. 8A, 8B) and the original

is untouched. The automation uses the white scanner cover as a background, so be sure that it is clean. You may lose white borders, but you can replace them with Photoshop's add canvas command. Think about how efficient this process is as opposed to cropping and rotating each image manually.

CONTACT SHEET II

A contact sheet is a layout of multiple images, and that is exactly what this automation does. Laying out multiple images by hand can be time consuming. Contact Sheet II (CSII) sizes them and automatically places them in a grid. CSII works in Photoshop and Bridge. It lays the images out on a single page or multiple pages. Like the batch command, choose the source folder where the images reside, or simply click on multiple images in Bridge. The dialog box (Fig. 9) specifies the width, height and resolution of the page, the color profile, the color mode, and the bit depth. The thumbnails field determines the layout by the number of columns and rows affecting the size of



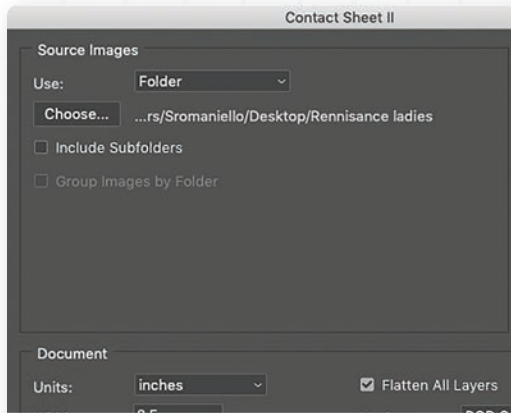


Fig. 9: The Contact Sheet II dialog box specifies the width, height and resolution of the page, the color profile, the color mode, the bit depth and the grid configuration of the page.

each image. The file name of each image can be applied if the box is checked. Click OK and the page with the selected images neatly placed in columns and row is automatically created. (Fig. 10).

There are additional automations and scripts in the file > automate or file > scripts menu that engage numerous time-saving techniques that will make your job more efficient. They are all worth exploring.

The automations that we've looked at are practical technologies designed to apply a complex sequence of commands to single or to multiple images. The most obvious advantage of this concept is to help increase efficiency and avoid tedious repetitive tasks. There is another purpose as well. Applying the same alteration manually to multiple images can produce errors and inconsistencies. Automation assures that results are perfect and consistent. **GP**

STEPHEN ROMANIELLO is an artist and educator teaching digital art at Pima Community College in Tucson, Arizona, for over 30 years. He is a certified instructor in Adobe Photoshop and the author of numerous books and articles on the creative use of digital graphics software. Steve is the founder and CEO of GlobalEye Systems, a company that offers training and consulting in digital graphics software and creative imaging.



Fig. 10: The contact sheet generated by the automation.



Artwork ENHANCEMENT

**TIPS FOR DEALING WITH LESS-THAN-PERFECT
ARTWORK IN CORELDRAW**

BY DOUG ZENDER



In this article, I hope to provide some help dealing with issues caused by less-than-perfect artwork. We often receive images that are not reproducible as received. Maybe it's a bitmap image that is highly pixelated at a low resolution. Maybe the only thing we have is a business card with a logo or a logo from a website or some other rendition of a design. In these cases, our client often expects us to do miracles.

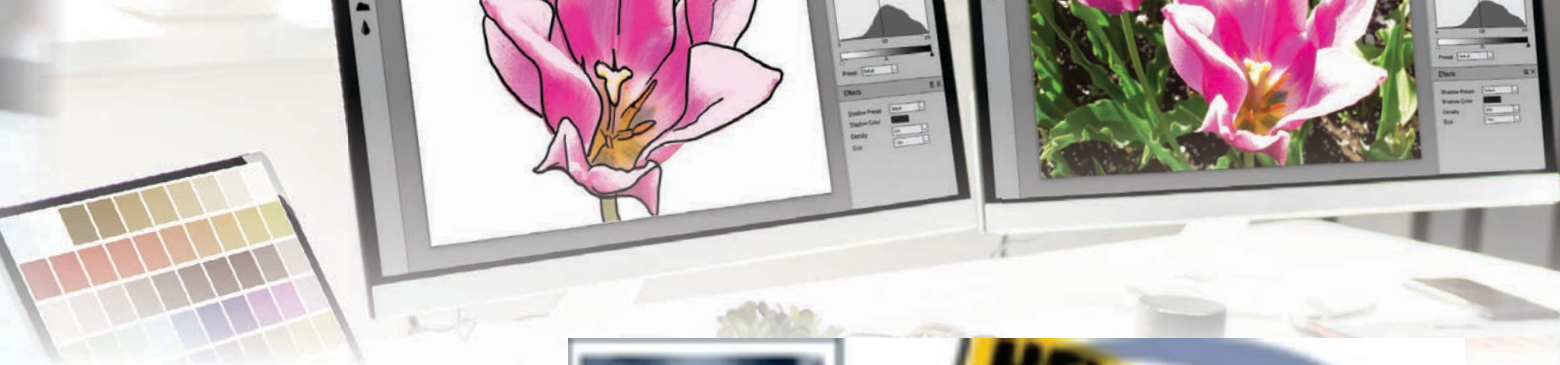
There are some abilities at our disposal in CorelDRAW that can help, but there are myriad limitations. Some images are beyond salvaging.

Following, I explain some things I have used in the past to deal with these problems. These are, by no means, a final solution but an attempt to enhance poor artwork to achieve the client's anticipated goal. Sometimes we receive images that cannot be fixed by any means. It is always,

in these cases, incumbent on our client to provide artwork that is acceptable for their purposes.

HELPFUL TIPS

To begin, I chose an image that was originally designed as a website image sized approximately 2.6" wide and 72 DPI (Fig. 1). This image shows obvious pixelation and ragged edges. My first thought was to resample the image to a higher resolution.



With the image selected, I chose bitmap > resample, and the dialog in Fig. 2 appears. In the resolution field, I typed 300 to replace 72. It is important to ensure that anti-aliasing is checked. (Anti-aliasing is a feature that smooths, or blends, adjacent pixels for a more pleasing and fluid visual appearance.) After clicking OK, Fig. 3 displays the result. Sometimes this is all that is necessary to enhance an image, but in this case, the image was only a bit better — still without sharp delineation of objects.

Another action that has proven somewhat effective in enhancing an image is a PHOTO-PAINT feature known as posterize. This can be especially useful if a photo is to be power traced into a vector image.

With the bitmap selected, click the edit bitmap icon. When the image opens in PHOTO-PAINT, go to image > transform > posterize; a dialog appears with a level slider. For this image, I chose (8) as the level. This essentially limits the number of colors to eight. It is good to enable the before-and-after view to monitor the changes visually.

When you are happy with the result, click OK and save. Close PHOTO-PAINT and the modified image reappears in CorelDRAW. (Fig. 4 compares the original photo with the posterized version.) I selected the new posterized image and chose to trace it. Fig. 5 is the vectorized version — ungrouped, I deleted the blue background. One could easily select the resulting objects and give them each a fountain fill to suggest a more photo-realistic appearance while still retaining the vector object characteristics.

Caution: I have learned, over time, that before beginning any modification, it is good to keep a copy, or duplicate, of the original image in case something goes awry in the modification process. One can then access the original image and begin again.

I have found that often it is most expedient to simply redraw the object into a vector



Fig. 1.

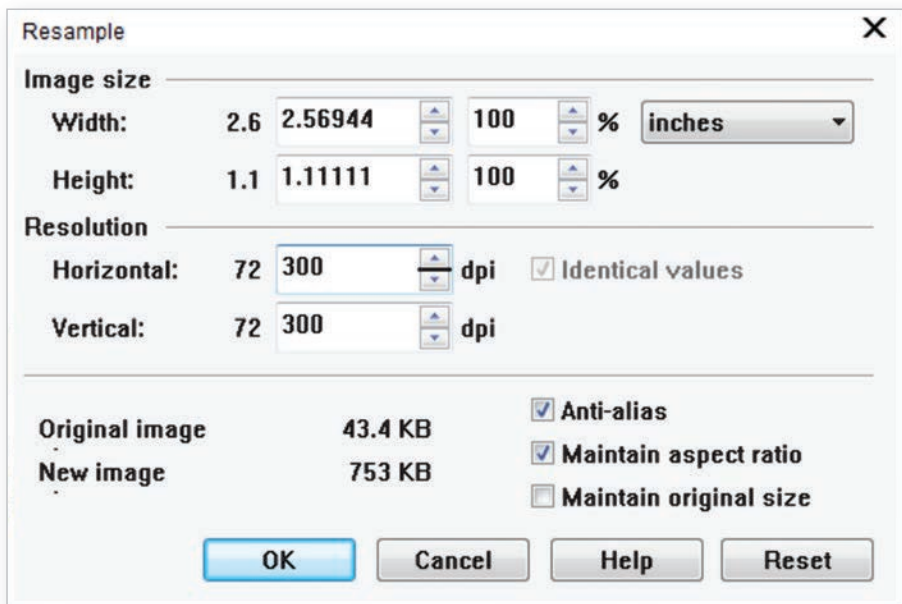


Fig. 2.



Fig. 3.

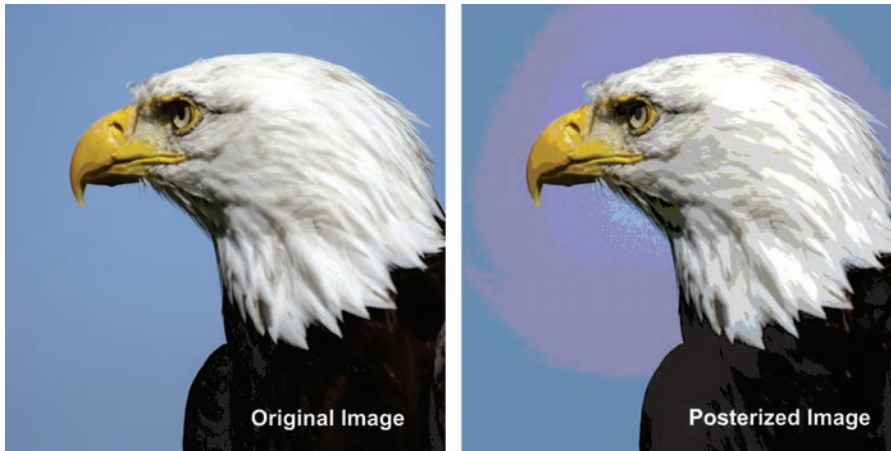


Fig. 4.



Fig. 5.

image. Fig. 6 shows the original bitmap on the left and my vector drawing on the right. This company is an auto body shop specializing in custom paint jobs and wanted this paint gun to show their expertise in custom painting. Unfortunately, the image they provided was too pixelated to print well at the 24" enlargement required for their sign.

When speaking with the owner, I estimated three hours for my design time to redraw the image, which he agreed to after seeing the visual difference. The actual time was slightly over two hours, so I was able to charge him less than my original estimate. It is always a good thing to save people money when you can. It helps create customer confidence and loyalty.

In my drawing, I show more detail than the original and allow the image to be scaled to any size without degradation. I drew the various objects directly over the original bitmap in wireframe view, then used fountain fills, blends, and contours to achieve the photographic qualities needed for realism in the enhanced view. Most drawings are not this involved, but sometimes this sort of thing is necessary to reach our client's goal.

ADDITIONAL THINGS TO TRY

The next example is an image that was used by a local church to promote an upcoming event. It was provided by another entity, but unfortunately, the designer did not allow for enough contrast between the lettering and background to have the message be readable or effective (Fig. 7).

My first attempt to create the needed contrast was to fill the offending letters with a lighter, contrasting color in PHOTO-PAINT. This, however, proved to be a bit fruitless as the sharp edges of the letters were rough, rugged, and rounded. So, back in CorelDRAW, I chose to draw over the letters. This was a faster approach than searching out the exact font used by the designer.



These letters were easy enough to re-draw, all being bold and symmetrical. I first resampled the 72 DPI bitmap to 300 DPI for clarity. After all the letter shapes were created, I filled them with the original color, this time adding an outline in a contrasting color, in this case, white. Fig. 8 shows the result.

I then exported the image to an RGB JPEG at the original 72 DPI and sent it to the church webmaster. The results of my modifications made the message more readable without the reader having to strain to guess at the message.

Dealing with poor-quality artwork is a challenge for any designer. Sometimes we succeed with minimal effort; other times, it is only an exercise in futility and frustration. We must educate our customers on what kind of artwork is acceptable for reproduction and what is not. Most of our customers do not know much about what we can and cannot do, nor how to reach their vision. They only know what they want and rely on us to make it happen.

All the above information reflects what has worked for me in the past. If you have other insights or processes that have helped you regarding artwork enhancement, I would love to hear about them. All my years using the program have proven me to still be a student, and I am still learning new things almost every day.

My email is dezender1@gmail.com. Any questions will be answered as soon as possible. I have found that many questions are a thing I have no answer for, but I will endeavor to search one out. **GP**



DOUG ZENDER has used CorelDRAW extensively since version 4. His goal is to minimize the intimidation of the program and give users the sense that CorelDRAW is a friend, not an adversary. Doug began as a design artist, then moved into the sign industry in 1992 doing vinyl graphics. You can contact him at dezender1@gmail.com.



Fig. 6.



Fig. 7.



Fig. 8.

A New Lease on Business



SECURING FINANCING FOR YOUR NEXT ENDEAVOR

BY PAULA AVEN GLADYCH

Buying or leasing equipment for your sign or graphics business doesn't have to be difficult. There are numerous ways business owners can add equipment to their shops without breaking the bank.

When talking to business owners about making that investment, "for most it is a pretty big decision and requires preparation on their part to determine the best options to pay for it, and that's after going through the decision process on what equipment to buy and how much they should spend," says Greg Bourdon, CIT.

Bourdon spends time with his clients walking them through the different types of financing available but also finding out more about them and their company to make sure he recommends the right financing choice for them and their business.

He likes to ask them: How long do you plan to have the equipment? Do you plan to keep the equipment when it is paid off? How much money will the equipment bring into your shop or is it replacing a piece of equipment you already have?

The main equipment financing options include paying cash or using a credit card to





buy the equipment directly, applying for a traditional bank or Small Business Administration loan, leasing the equipment, or tapping into alternative financing or commercial use financing, says Craig Colling, Ascentium Capital.

PAYING WITH CASH OR CREDIT CARD

Well-established companies with great credit and plenty of cash on hand can either buy the equipment with cash or pay with a credit card because they know they can pay it off in full within a couple of months. Most young businesses or startups don't have that type of cash just sitting around so they will end up seeking another path to get the equipment they need.

The cost of the equipment will determine if using a credit card to pay for it makes sense, Colling says. Most companies don't have a card with a \$250,000 limit, so purchasing some of the bigger printers or equipment isn't feasible, but if the machine they want to buy is under \$30,000, it might be an option.

Keep in mind that many equipment manufacturers don't want to accept credit cards, especially at trade shows, because they have to pay a steep credit card fee



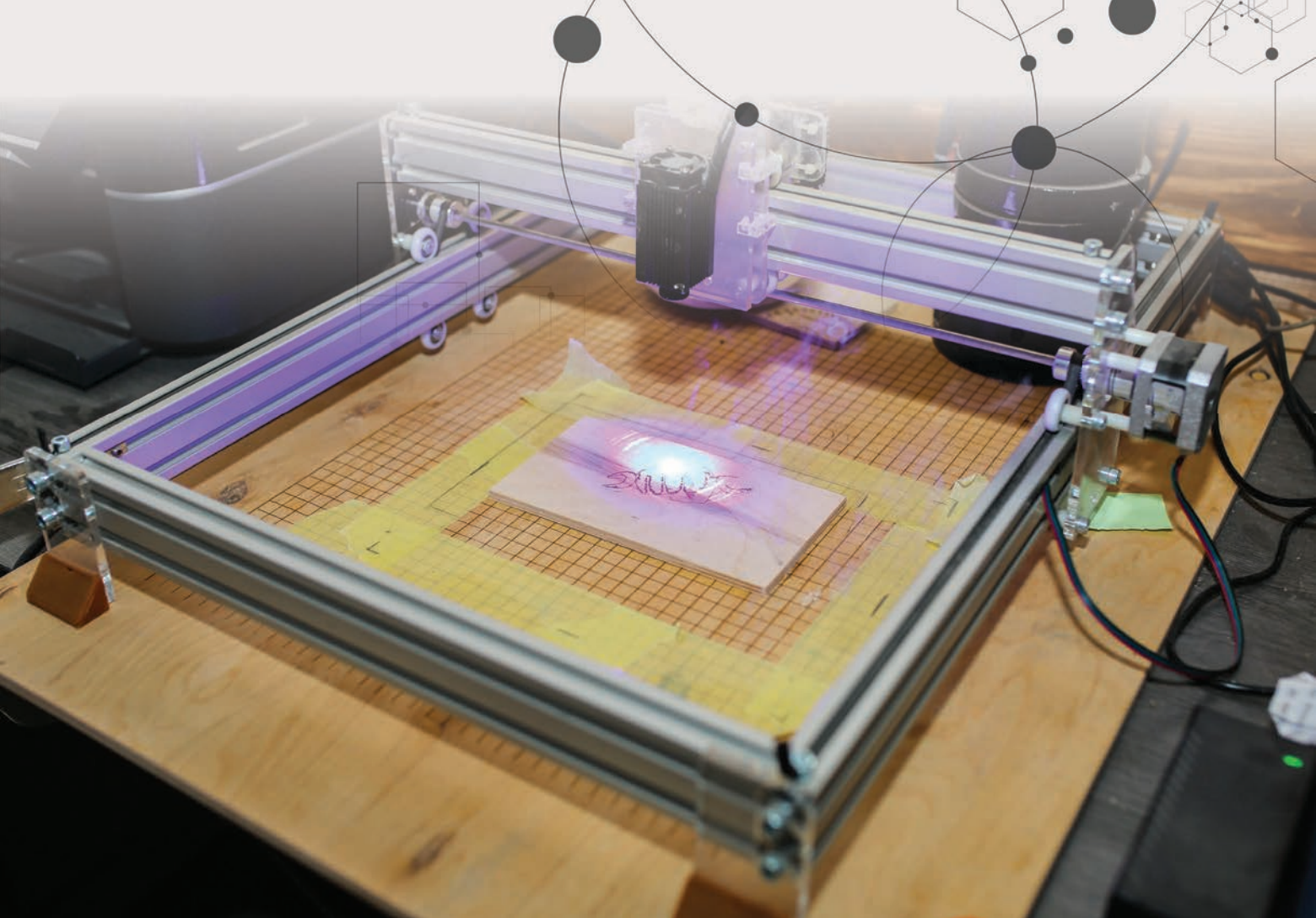


of 2-5% on all purchases. For a \$30,000 printer, the fee could be \$1,000. The other problem with using a credit card to purchase equipment is that the buyer could dispute the purchase with their credit card company if they have a problem with the equipment, which could end up costing the seller even more money, Colling notes.

If a client has a bit of cash on hand, they could use both cash and credit to purchase a cheaper piece of equipment.

“When a client tells me they are considering using a credit card, it comes down to circumstance,” Colling says. If the client has an Amex Black Card and can afford to just swipe it and be done, they





should do that, but newer businesses, “even if they could put it on a credit card, they may want to finance with us and build up their business credit,” he adds.

TRADITIONAL LOAN

Colling says he encourages clients to pursue a business line of credit via a bank or a government-backed loan, like an SBA loan, if they already are working with a local bank and can secure great rates.

Typically, traditional bank loans offer single-digit interest rates, even for newer businesses. They also offer longer term loans, meaning a company could spread out its payments over five to 15 years.

“The biggest challenge is the speed of the application approval process,” he says. It can take five or six months to get approval on a loan and many times the loans come with “strings attached,” like a larger down payment. A \$100,000 piece of equipment could require 10-20% down because banks want to limit their risks, he adds.

“Bank financing is less about credit ... The asset itself is the larger factor. They

want to minimize risk. If someone defaults on a loan with a house, they sell it and break even. With equipment, that piece may be worth 60 cents on the dollar, so it is not great collateral for traditional lending models,” Colling says.

Troy Putnam, Geneva Capital, says a home equity line of credit also can be used to purchase equipment but “usually you want to leave those funds available for other short-term opportunities that might come up.”

EQUIPMENT LEASE FINANCING

The fourth solution is called alternative financing or commercial use financing. Equipment leases still exist but most customers want to own their equipment outright. Companies like Ascentium offer equipment financing agreements that offer a fixed payment over a two- to five-year time frame, like a bank loan, but the difference is the customer owns the equipment from day one. After the customer makes their last payment, the lien is released.

For established businesses, an equipment finance agreement is nearly identical to a traditional bank loan with rates between 5% and 8%, but no money is due at signing. During the pandemic, Ascentium implemented a deferral model that allows customers to defer payment for up to six months so their new equipment can help them start generating revenue and profit. After that deferral, the two- to five-year agreement begins with a competitive interest rate, Colling says.

Geneva Capital offers two different programs for equipment financing, a true lease or tax lease and a capital lease. A tax lease is designed to keep monthly payments lower because there is a fair market value purchase option at the end of the lease term, such as 10% of the original equipment price. For a \$10,000 piece of equipment, the purchase option at the end would be \$1,000. The other benefit of that option, he says, is that it gives the buyer the ability to expense and deduct their full monthly payments over the course of the term, which is typically 12-60 months. If



TRYING TO FIGURE OUT WHEN TO INVEST IN NEW EQUIPMENT? AARON MONTGOMERY SAYS YOU NEED TO BUILD A MARKET FOR IT FIRST: <http://gpro.link/newequipment>.

they choose not to purchase the equipment at the end of the lease, they can just return it, says Putnam.

A capital lease or dollar out option has a 12- to 60-month term but is viewed by the IRS as a conditional sale. "It is a purchase," says Putnam, "meaning that from a tax standpoint, you treat it as such, you carry both the asset and liability on your balance sheet and run through standard appreciation."

The capital lease also qualifies for a Section 179 deduction, which allows the business to write off 100% of the cost of equipment up to a certain amount. To take advantage of Section 179, Geneva can structure the lease with a purchase upon termination option at the end, such as \$1 or another predetermined amount. At the end of the lease term, the equipment must be purchased, or the lease renewed, to take advantage of the deduction. Many companies choose this option when purchasing equipment during the third quarter of the year so they can take advantage of the tax deduction.

Ascentium works with equipment manufacturers to offer online financing options. This works well for customers browsing new equipment at trade shows. The manufacturer can show them Ascentium's online portal to apply for financing and they can be approved for a \$250,000 purchase in two hours. The application and required signature are electronic.

For established companies with great credit, alternative financing is a great option because "our rates are competitive, we move faster than a bank and there are no lien requirements," says Colling.

For mom and pops with poor credit, this option is more expensive, and it is important to know how the payoffs are calculated. This type of financing is not like a traditional loan; they are full payout contracts. A client can't just pay it off early by paying only the principal and no interest.



“If a client tells me they want to borrow money and pay it off in six months, I will say you can do that, but this is not a principal-only loan and you will end up paying part of the interest,” explains Colling.

WHAT TO KNOW WHEN APPLYING FOR FINANCING

Bourdon encourages businesses wanting to make expensive purchases to get their financial ducks in a row before they approach a bank or a company like his that offers equipment financing. Gather any documents that prove how long your company has been in business, including old tax returns or a business license. Lenders also look at a company’s business credit, so it is important that business owners check their information at Dunn & Bradstreet for inaccuracies or missing information before applying for financing.

Businesses might be asked to provide two years of tax returns and information on debt schedules to show what other payment obligations they have. Lenders want to make sure a new payment won’t cause a business too much financial stress.

Bourdon also recommends business owners make sure their personal credit report is accurate.

“As soon as you decide to purchase equipment, think about how to pay for it early. It will make it that much easier to get the best deal on financing, to pull the trigger and make that happen,” advises Bourdon. **GP**

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

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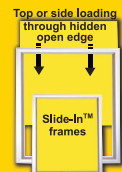
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- Epilog Laser - Get the Most from your Laser Investment: Tips & Techniques to Save Time & Increase Profits
- JDS Industries - Troubleshooting Sublimation

11 a.m. — 12:30 p.m.

- IKONICS Imaging - Profitable Sandcarving - Small Investment, Large Potential

1:30-3 p.m.

- Trotec Laser - Skills, Strategies & Laser Hacks to Help you Succeed in a Changing Business Environment

FRIDAY, OCTOBER 29, 2021 Cont.

1:30-3 p.m.

- Transfer Express – Screen Print with Just a Heat Press

4-5:30 p.m.

- Rayzist Photomask - Learn Sandcarving with Rayzist Photomask

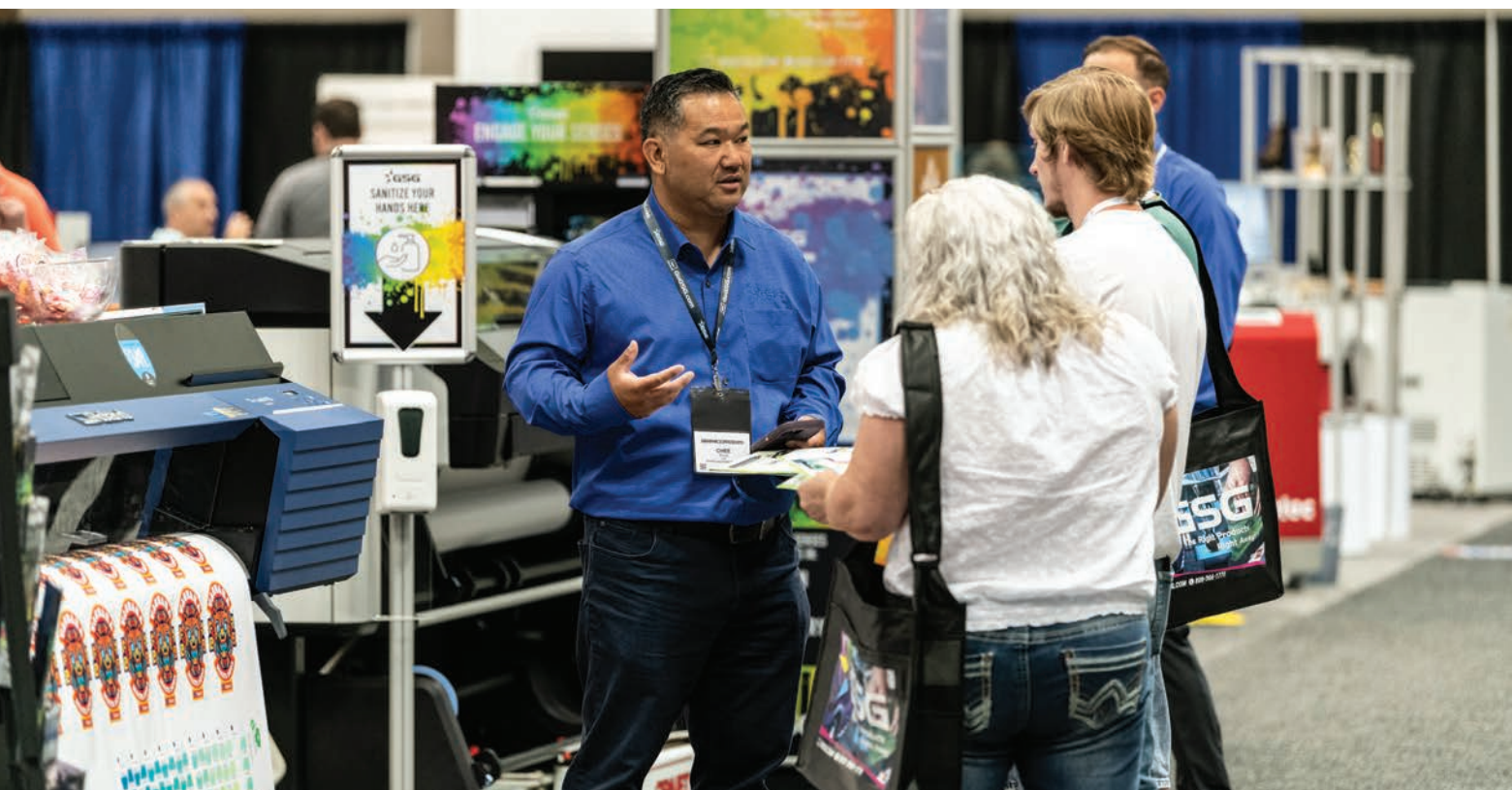
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8-9:30 a.m.

- STAHL'S' - Top Apparel Trends and How to Print Them
- Corel Trainer - CorelDRAW A to Z

11 a.m. — 12:30 p.m.

- Transfer Express – Should you Print Licensed Logos?
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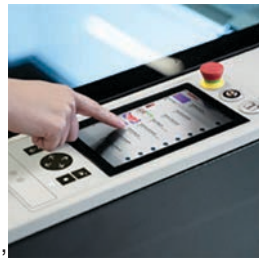
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STITCH SOLUTIONS

continued from page 27

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It is not our customers' job to think like an apparel decoration professional. They excel at what they do and rely on us to excel as their apparel advisor and branded product coordinator. Communication with your customer is more important than ever. When you understand what they want, what they need, and when they need it by, you can offer multiple acceptable solutions, ideally. If all you say is, "It is not in stock," that customer is likely to contact another apparel decorator to see what other options are available.

Creativity, persistence, and flexibility win the day and the orders, helping you overcome or outsmart the inventory challenges our industry is experiencing. We are all in the midst of an unpredictable experience testing our mental, financial, and emotional well-being. If there was ever a time for resilience — to improvise, adapt and overcome — this is it. **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.

SHOP TALK

continued from page 85

ally all have been modified. Long ago, we added a tabletop surface for our one larger puncher, which was shop-made as well. None of these shop tools sit in the corner without being used, and since we have several, we can always keep different-sized hole punchers in our various units.

Another punch setup, mostly unique to our shop, is a table unit I built that incorporates two off-the-shelf punches, modified to bolt in place to a table. The punches were permanently spaced exactly 14 1/2" apart to fit the standard yard sign frame hole pattern.

Using shop-made pushrods and a swiveling foot pedal, this double-barrel hole punch has "drilled" holes in so many oil-field and real estate signs they would be hard to count. The pictures shown here are from when our little creation was new, and I was a little "newer" myself since this was several years ago. I have written about it before, but it is probably a rather unique variation worth mentioning as it is still used in our shop virtually every day, and that has been the case for at least a dozen years.

The illustrations accompanying this article show the simplicity of our work modifying these sheet metal punching tools into much more useful work items. But my guess is that few shops take the time to make these improvements.

For us, the time and effort required for these simple improvements have been totally worth the effort. With the right tools, sign shop work is faster, easier, more accurate, and perhaps a bit more fun, which is good for our clients, and certainly good for us. **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* and *Sign & Digital Graphics* since 1986. Contact Rick via email at ricksignco@aol.com.

APPLICATION TABLES

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WORK SURFACE

Years ago, we built a wood production table and cut a section out of it that we mounted a light fixture under. It didn't look the greatest, and if we left the light on too long, it would warm and temporarily warp our cutting mat, but it did the trick in providing a backlight for aligning graphics or cutting hard-to-see weed borders.

While we have other small production tables with cutting mat surfaces, our application table is our primary work surface. The entire table is backlit under a glass surface, which is overlaid with a self-healing cutting mat.

The backlighting is excellent illumination in the production area for general weeding and cutting but is especially helpful when cutting white vinyl or aligning multiple colors. **Quick tip:** If you're still having a hard time seeing your weed borders for accurate cutting, try flipping the graphics over and cutting from the back or turn off overhead lighting, which allows the backlighting to make the edges easier to see.

TOOL STORAGE

Another simple but unbelievably helpful feature of the table is storage trays on each side. The trays are removable if you want to sit at the table without your knees hitting, but we use the trays.

Knives, squeegees, scissors, pens, tape measures, and masking tape are stocked on each side. The table also included a long-reach cutter so that mask and graphics can be cut across the table's width from one side. It has a magnet on the back so the tool can be hung from the metal table or set in the storage tray. **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.

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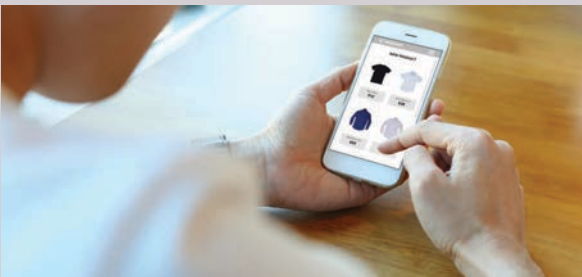
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