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The **Mimaki** Magazine

#2

Totally Textiles

New Fluorescent 'Neon' Inks

How to Get Into Dye Sub Printing

Exciting Non-Apparel Opportunities

Expanding Your Business with Textile Printing

In the wide-format digital printing industry, the term “textile” is used to encompass a variety of applications, materials, and processes. These include wearables, soft signage, interior décor, environmental, or other applications using dye sublimation, direct-to-fabric printing, or a transfer process. These technologies have seen a resurgence, driven by the shift from traditional analog screen printing to digital wide-format production.

There is a growing trend towards soft signage in the exhibit industry due to it being lightweight, easily rolled and packaged, and more durable than many hard surface graphics. Exhibits of all sizes are a good opportunity for soft signage, from short- (tradeshows) to mid-term (art shows) applications. For example, a six-month art exhibit might use indoor soft signage for wayfinding and outdoor banners for promotional purposes.

Likewise, soft signage is attractive for retailers and brand managers because it can be used to produce wind sails, dancers, and other attention-grabbing applications that are easy to handle and less expensive to ship.

Stretch-frame fabric light boxes are gaining in popularity as they can be made to look like design elements in a retail or office environment, or as part of an exhibit. The vibrant colors produced by direct-to-fabric printing ensure colors are vibrant, even when backlit.

Interior décor is another area that offers great opportunities. Environmental graphics for office lobbies, medical treatment areas, hotel rooms, etc., are desirable because of their softer feel that imparts a feeling of hominess. Wallcoverings, wallpaper, flooring and mats, curtains, upholstery, wall art, and bed coverings can all be produced digitally.

Across the board, there is a reemergence in wide-format business opportunities using digital transfer, direct dye sublimation, and other textile printing technologies. This is due to the increased availability of specialty application fabrics designed for high fashion, performance apparel, and industrial textiles. With an increasing selection of fabrics, new and emerging markets are open to this technology.

Everyone involved in the screen or commercial printing, events, and graphic arts industries can grow their businesses and increase profitability through digital textile and fabric printing. One-off or short-run fabric printing using a direct-print process to enhance promotional campaigns is now an easily achievable and highly profitable way to expand business opportunities.



Ken VanHorn
Vice President
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Pictured on the cover is the Mimaki TX2-1600 digital textile inkjet printer. This particular model was introduced by Mimaki in 2001 and is still going strong at Philadelphia University's Kanbar College of Design, Engineering and Commerce. The Center for Excellence in Digital Inkjet Printing of Textiles at Philadelphia University was launched in 2000 to enhance and promote the digital textile printing industries.

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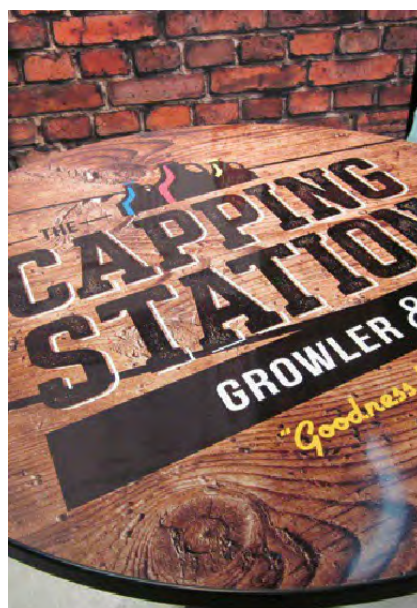


TS500P-3200 Superwide Dye Sublimation Printer

It's no secret that the time of textiles has come. Between your suppliers' increasingly specialized printers, inks, and even software, and your customers' expanding taste for digitally printed textiles, is you, the print service provider, ready to bridge machine and market with ever-creative and stunning output. Perhaps you're already exploring the potential in retail, decorative markets, and other fields; what you need to set you apart is something big.

Mimaki's new TS500P-3200 printer is just that: At 129 inches wide, with a media handling system to match, the printer is ideal for producing oversized soft signage and home furnishings – curtains, upholstery, and even bed linens. (A king-size bedspread measures 120 x 120 inches.) The TS500P-3200 printer is designed with 12 reengineered printheads arranged in three staggered lines, reaching speeds up to 1937 square feet per hour in four-color mode or 1130 square feet per hour in six-color mode. The heads' high-gap design assures accurate ink drop placement without risking media cockling or head strikes. In addition, the machine's Auto Media Feeder, capable of handling up to 286-pound rolls, applies calibrated tension that guards against telescoping, buckling, or creasing later during the

calendar transfer process, while four independent postpress heaters reduce cockling in transit to the take-up reel.



The TS500P-3200 printer employs Mimaki's Sb310 dye sublimation inks in four- or six-color (CMYKcm) configurations, offering up to three-liter bulk-ink storage that can be replenished while the printer is running. Further measures to reduce stoppages include Mimaki's Nozzle Check Unit and Recovery System, which detects and cleans clogged nozzles, mapping those that

are unrecoverable as the job continues. A degassing module is also included, helping to prevent nozzle failures.

Additional features that ensure the highest-quality prints include waveform control, jetting each color according to its specific gravity and viscosity; variable droplet sizes in small, medium, and large; and Mimaki Advanced Pass System 4, an advanced algorithm designed to reduce banding, uneven ink drying, and bidirectional stripes. Maximum resolution is 1080 dpi.

The TS500P-3200 printer is accompanied by RasterLink6 RIP software; print service providers looking to hone in on the finer points of textile color management can select Standard or Professional TxLink3 RIP software packages. Users can also take advantage of Ethernet connectivity and email notifications for remote monitoring.

Buyers of customized décor and soft signage love textiles for reasons beyond easy handling and economical shipping; there is an element of sophistication and flare in digitally printed fabric that can't be replicated – not to mention the ability to take customization to another level. Before long, it won't be enough to simply have a foothold in textiles. Growing customer demand will make production-scale textile printing capabilities a prerequisite. And with size, speed, and surety, the TS500P-3200 printer is more than capable. ■

A JUMP on the Future

FORWARD-THINKING FLORIDA
FRANCHISE TAKES ON FAST-
GROWING SOFT-SIGNAGE
MARKET WITH DYE SUB.



Veteran businessman Mike Retherford knows the importance of understanding his market and putting in the time and effort to help his customers succeed. He says it's one of the biggest things he learned running multimillion-dollar companies in two different industries and subsequently passed on to others as a CEO coach. "You have to keep an eye on the direction the business and your customers are headed and try to look ahead and adapt; you're working together as extended partners to build two businesses," he asserts. "Loving what you do and executing better and faster than your competition is what sets your business apart." This, indeed, has proved to be a major factor in the rapid growth of the SpeedPro Imaging wide-format digital printing studio he opened five years ago in south Orlando, he says.

Despite knowing virtually nothing about imaging and sign production going in, Retherford's understanding of business and passion for learning and moving forward have enabled him to carve a primary niche in Orlando's lucrative tradeshow and event decoration market. He has also developed accounts with advertising agencies, large marketing firms, and the Orlando parks. With ongoing investments in technology – like his purchase of a Mimaki JV5-320 dye sub printer for fabrics – keeping him in the forefront of trends in exhibition graphics, he anticipates even stronger future growth fueled by the rise in the demand for soft signage.

"I love decorating, and walking into places like the Orange County Convention Center and seeing the dye sub fabrics, banners, and graphics reinforces the excitement



I feel," says Retherford. It also brought home the reality of the level at which he'd be playing, he recalls. "Meeting customers' needs better and faster than anyone else in the market is the key to success in this business, as in any other."

A critical part of meeting client demands is having the right equipment to support his customers. For SpeedPro franchises, an equipment purchase begins with making sure a market is viable and building a revenue base that indicates sufficient return on investment to justify bringing a machine in house, explains Retherford. This starts with exploring sales verticals (which SpeedPro provides) and building relationships with wholesalers to provide decorating services for their customer base. The next step is gaining knowledge about the technology available for performing those

services. For Retherford, who has taken an aggressive approach to expanding his equipment arsenal, this has involved conducting research online, visiting competitors in other cities, talking with manufacturers, and attending tradeshow.

"When we started getting event and tradeshow signage business, I knew this type of work was a natural for flatbed printing, and we ordered our first of these units," he says. "We saw that tradeshow were really underserved in our area and the flatbeds allowed us to make a strong movement into the market. We were the first SpeedPro to get a flatbed printer, and now we have three in Orlando and nearly 50 units in the SpeedPro network. We got into flatbeds because they helped eliminate risks for us, our customers, and their customers by allowing for greater accuracy and consistency in certain types of work,"



“After exploring the options at industry tradeshows and during site visits to various manufacturers, we decided to go with the Mimaki JV5-320. It was a really solid machine that was field-tested; I felt I’d be better able to get support because it was established in the marketplace and it was also at a competitive price point.”



he notes. “I’m all about eliminating risks that impact quality, speed to response, and speed to market. And keying the equipment to the job plays a big role in that.” He notes that his was also the first SpeedPro franchise to buy a high-speed digital cutter, and the network now has 22.

Retherford’s shop broke further ground and opened new paths to profit by becoming the first SpeedPro store and the third commercial printer in Orlando

to incorporate dye sublimation printing capabilities. Retherford recalls seeing a sobering 2014 industry study that predicted an annual growth rate of between two and six percent for rigid and flexible substrates, which is where his company was then focused. “But the same report predicted soft signage growth to be nine to 11 percent per year, for the next five years.” With advantages including ease of installation, foldability for storage, simpler and less-expensive

shipping, and lower likelihood of damage, “Soft signage was clearly a big part of the future for tradeshow decorating – and possibly for our company,” he says. “And sublimation seemed the best way to go.”

After polling his existing customers about their present and projected use and needs in this area, Retherford determined printing on fabric had the potential to be a major profit center – provided he could achieve the same high quality and fast turnaround for which his studio was known. “We had the trust level of our customer base and they said they’d come with us, but we had to do it right in terms of color accuracy, precision cutting, and quality finishing,” he explains. To accomplish this, he knew, he had to bring in the best equipment to make sure the implementation was flawless.

“Although we had latex printing capabilities, we liked the richness of dye sublimation colors,” says Retherford. “After exploring the options at industry tradeshows and during site visits to various manufacturers, we decided to go

with the Mimaki JV5-320. It was a really solid machine that was field-tested; I felt I'd be better able to get support because it was established in the marketplace and it was also at a competitive price point."

Color and print quality were critical factors in Retherford's choice. When comparing dye sub printers, he challenged different manufacturers to print the same image for him to evaluate for print speed, ink efficiency, bulk ink system, and print quality. The results were that the JV5-320 printer was competitive against all printers in its class, at a fraction of the cost of the other machines. "Our print studio is G7-certified for color accuracy to ensure that everything we print is an exact match to the color we're going for in the Pantone book," he notes. "When our Mimaki distributor, Inkjet Performance from Atlanta, installed our machine, we immediately profiled it for color and its printing was amazing right out of the gate. We had three days of training during which we learned how to operate the JV5-320 printer, which was fairly simple and easy for our production team to manage."

With the Mimaki JV5-320 printer, and a high-speed sewing station, SpeedPro Imaging-Orlando is positioning itself to carry its emphasis on quality and speed into fabric printing. "We've built our business on great-looking images while being dependable and fast, turning most jobs in 24 to 36 hours. We believe if you make sure you're covering every aspect of this, we've found customers acknowledge that you may cost more, but use you because you're worth it."

Retherford counts partnering with his customers in planning for the future as part of this added value, and sees dye sub printing as supporting and expanding this role. In the past six months, he has added backlit fabric signage to his offerings. By combining soft signage with LED lighting, which is becoming an increasingly popular alternative to fluorescent lighting, backlit fabric is becoming an in-demand way of making tradeshow graphics pop. Offering event planners the capability of



doing this through sublimation is tapping into an evolving new revenue stream, he says. Retherford believes his Mimaki JV5-320 prints the best dye sub fabric in Orlando, for color accuracy and quality of print, and at 450 square feet per hour, he says it has been a great investment.

"Fabric is still a new frontier for signage," Retherford asserts. "And we are heading there 'guns-a-blazing.' This year, fabric accounted for about 15 percent of our total revenues, and we foresee adding as much as we can to that volume over the next 24 months." ❏

Dye Sub 101



In today's digital print industry, success is all about flexibility. Printing techniques run the gamut, with eco-solvent, latex, UV-curable, and direct-to-fabric technologies constantly evolving, creating more opportunities for PSPs to stand out. But as the textile market continues to boom and the demand for unusual custom-printed goods soars, dye sublimation printing – in which graphics are transferred onto synthetic fabrics and other materials – is a fast, reliable, and versatile option your print shop should be offering.

BACK TO THE BASICS

Commonly used to decorate banners, flags, signs, and apparel such as T-shirts and sportswear, dye sub inks are only compatible with polyester media. “However, there are more polyester-based products on the market than ever before,” says Michael Maxwell, senior manager, Sign and Graphics Business Development and Marketing, Mimaki USA. Those media go far beyond polyester fabrics to include

polyester coated surfaces such as coffee mugs, aluminum blanks, and mouse pads. “These additional product offerings have opened up the dye sublimation market, making it one of the fastest growing segments of the printing space today.”

Dye sublimation printers output graphics onto specially coated papers that work

together with the dye inks. After printing, the user transfers the graphic from the paper to the final product using a fixation unit (better known as a heat press). “Even in a direct-to-fabric print environment, a special ink-receptive coating is required on the printable surface of the fabric,” says Maxwell. The dye sub ink transfer process is activated by three variables: heat,



pressure, and dwell time (the length of time the heat and pressure are applied).

Maxwell explains that the heat press, a critical component of a shop's dye sub printing capabilities, is an important purchase that often isn't given sufficient consideration. "Heat presses vary greatly in size based on need, and require more space and power to operate," he continues. "Customers should purchase a heat press that can meet their expansion needs over a period of time, as heat presses are durable and will last for years."

For shops that have worked strictly in direct-print applications, the workflow of dye sub printing takes a bit of adjustment at first, but the benefits more than compensate. "Dye sublimation offers just-in-time production on many different types of polyester fabrics or polyester coated surfaces," says Maxwell, adding that the colors are more vibrant on graphics produced using dye sub compared to those produced by other print technologies. "Not only can PSPs offer a wide range of fabric-based products, but as more polyester coated technologies are introduced, they're now able to offer products that range from signage in commercial and retail



spaces on materials such as aluminum to promotional items such as mouse pads, key chains, phone cases, and puzzles."

Another benefit to dye sub? There's no drying time. Media is ready for finishing and shipping as soon as the printing is complete.

WITH MIMAKI'S HELP...

So, what does Mimaki bring to the table to help you enter the dye sub market?

"Mimaki believes in delivering quality products, at an affordable cost, to match the workflow production level for a wide variety of customers' needs," says Maxwell, "all through an integrated design process. Our products are simple to use and designed to deliver results. Our engineering processes happen to deliver some of the



most innovative and integrated products in the world. Mimaki believes in providing a solution to fit the needs of almost anyone interested in printing."

Mimaki presents a range of dye sub systems, from entry level to high productivity, making the technology an easy addition for your shop. Various options include:

- The 77-inch, roll-to-roll TS300P-1800 production dye sublimation printer for mid-range production, designed for textile printing and other applications requiring transfer to rigid surfaces; also now available with fluorescent yellow and pink inks;
- And the most recent addition to Mimaki's dye sub lineup, the TS500P-3200 printer, a 129-inch model designed for superwide textile applications such as interior décor, hospitality fabrics, soft signage, and retail graphics.

"Mimaki has specially formulated combinations of printing and ink technologies, all manufactured in-house to improve quality, reliability, and speed," says Maxwell. "As a result of our commitment to quality and ease of use, we can accommodate start-ups and established printers with a consistent approach." ❏

Fluorescent Inks

Dye sublimation delivers the most vivid, eye-catching graphics possible. Now, PSPs can offer even more dramatic output through Mimaki's recently announced fluorescent pink and yellow hues in its line of Sb410 dye sublimation inks. Designed for use with the TS300P dye sublimation printer, the neon-like effects that can be produced with these new shades will be particularly appealing in the sports and fashion apparel markets — as well as the safety wearables market — though they can help all types of clients achieve graphics that stand out from the pack.

Along with the new fluorescent inks, Mimaki also added a light black to the Sb410 line, engineered to print smoother gradations for applications such as monochromatic photographs. Like the fluorescents hues, the light black can be read by the RIP through an extended multicolor gamut, or as a spot color addition in a standard workflow.

"We believe our Sb line has the most finely-tuned and versatile inks for dye sublimation printing available," says Maxwell. "The majority of our customer base uses Sb inks in a standard four-color setup. Even though only a small portion of the dye sublimation market demands them, fluorescent inks have become very popular in sportswear in recent years. The company has developed special fluorescent colors to expand the potential of the Sb line to meet current and future demands."



UJV55-320 Superwide UV-LED Printer

In today's one-stop business culture, it's more important than ever for PSPs to have the ability to say "yes" to an ever-widening variety of requests. Print buyers want to make a big impression; they want graphics that are sophisticated and eco-friendly; and they want them tomorrow. The more versatile your shop's capabilities, the more easily you can meet all of these demands and more.

Mimaki's new UJV55-320 superwide UV-LED printer is a 128-inch roll-to-roll machine designed with versatility and efficiency in mind. Offering six colors (CMYKcm) plus white, the UJV55-320 model prints on a variety of colored or transparent uncoated media, with applications ranging from backlit graphics and day/night signage to oversized posters, P-O-P displays, window graphics, banners, tradeshow graphics, and more.

With four staggered printheads, the machine is engineered to produce highly opaque and consistent color and offers multilayer printing, which, augmented by the addition of white ink, makes for a backlit or double-sided image that is equally vibrant under day or nighttime conditions. Maximum resolution is 1200 dpi. One highly innovative feature is the LED-lit Mimaki Proofing Panel, located on the front of the machine, which allows operators to check the backlit effect of the UJV55-320's output

as it rolls through the printer, enabling a job to be paused if necessary with minimal waste. The panel can be switched on or off for viewing frontlit applications, as well.



PSPs can make further use of the UJV55-320 printer's efficiency by simultaneously printing two rolls up to 60 inches wide; output on the two rolls can be the same or different. For high production, the printer outputs up to 1184 sq ft/hr in four-color mode, and prints are instantly cured, requiring no dry time. The machine is also networkable with Gigabit Ethernet for multiple printer connections over long distances.

Mimaki has engineered a number of features to ensure quality during long runs.

Mimaki Circulation Technology circulates the white ink at regular intervals to prevent pigment sedimentation for more stable printing, as well as fewer cleanings and more efficient ink usage. A Nozzle Check Unit and Recovery System automatically detects and recovers or replaces clogged nozzles. A bulk-ink system also stores up to three liters of ink at a time and allows ink to be replenished without interruption.

But quantity should never come at the sacrifice of quality. Mimaki's Advance Pass System 4 technology reduces banding while Mimaki Fine Diffusion 1 leverages a patented dithering technique to enhance image quality via RasterLink6 RIP software. In addition, waveform control jets each ink droplet at the optimum angle to maintain ink droplet formation and shape. The UJV55-320 printer ensures quality long after printing, as well, with VOC-free and scratch-resistant LUS-120 UV-LED inks that are flexible up to 170 percent, meaning printers can rest easy when handling soft media prints such as banners. If you've ever found yourself wishing you could be in two places at once, the UJV55-320 printer was made for you. Dual-roll capability takes on two jobs at a time; the inline proofing panel exposes mistakes before their cost breaks the bank; and ink storage and nozzle security features keep production moving while you find the next opportunity to grow your business. ■



Fashioning New Business WITH SUBLIMATION

LA-area decorator uses digital dye sub to expand apparel and fabric offerings to high-end clientele.

Fashion is about trends. And successfully serving the decorating needs of the fashion industry is about having the ability to support clients in the forefront of those trends. One leading decorator is E&R Unlimited, a Vernon, California-based company that uses leading-edge technology to demonstrate such a commitment to customers from around the fashion world.

In the decade-plus since its incorporation, E&R has continued to evolve as a one-stop

shop for apparel decorating, providing a wide range of embellishment, fabric printing, and finishing services for the fashion industry, with an emphasis on high quality and fast turnaround. To serve accounts ranging from high-end Los Angeles-based garment manufacturers to fashion lines for major rap and rock artists, the company has expanded its offerings to include embroidery, laser cutouts, burnouts, sequin and rhinestone application, and more, incorporating a broad spectrum of printing techniques along the way. Among the most recent,

exciting, and high-potential additions to E&R's repertoire has been sublimation printing, according to general manager Humberto Orea.

Since dipping its toes into digital dye sub in April of 2014 with the purchase of a Mimaki CJV30 printer, E&R has found the process to be a good fit for its approach to business and its bottom line. Even though the company entered into sublimation slowly to full understand the technology, the volume of its dye sub orders grew so quickly that the purchase



of a second, larger sublimation printer was warranted. The company again chose Mimaki, investing in the recently launched TS300P-1800 wide-format roll-to-roll dye sublimation printer.

“Our growth has been fairly aggressive,” says Orea. “In a two-year span, we went from sublimation accounting for roughly 10 percent to about a 50 percent revenue share. That translates to between 1500 and 5000 yards of fabric and/or cut pieces being sublimation printed per month. It is changing the direction of our company completely.”

Mimaki has played a major role in this evolution, with the TS300P-1800 inkjet printer enabling E&R to build on the opportunities opened by the CJV30 machine, allowing for continued innovation at high production levels.

“Our current customers began asking if sublimation would be the way to go for synthetic fabrics,” Orea explains. “We said yes right away, and company owner Eytan Shafigi and I starting looking for options.”

Such a search led E&R to Mimaki and the CJV30 printer/cutter two years ago. “We were looking for a machine that would allow us to extend our ability to create quick strike-offs for color matching and then print small sample jobs of three yards at a time,” says Shafigi.

But customer demand soon necessitated further investment. “We started out small with sublimation, but our needs quickly outgrew our capacity,” Orea notes. “Existing clients using E&R’s other processes were impressed by the quality

as Japan to evaluate its sublimation techniques, quality and speed were key in E&R’s selection of a second printer. Carrying forward its openness to technology and discipline in making the right decisions, the company

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— HUMBERTO OREA, GENERAL MANAGER

of our sublimation, and as word spread and demand increased, the need to be able to boost our output capability soon became apparent. We saw an opportunity and were committed to pursuing it, but we wanted to make sure that we were set up to do it well,” he explains.

With a portfolio including high-end Italian performance fabrics, fleece, and other polyester and poly/cotton textiles, and customers coming from as far away

carefully identified its priorities and performed its due diligence.

“With time, you gain experience and an understanding of the technical aspects of the sublimation process, and how to run accurate and brilliant color,” Orea says. “We had a pretty good knowledge of what to look for in a machine to enable us to achieve the results we were looking for. We wanted a robust, large-scale printer that we could use aggressively and on



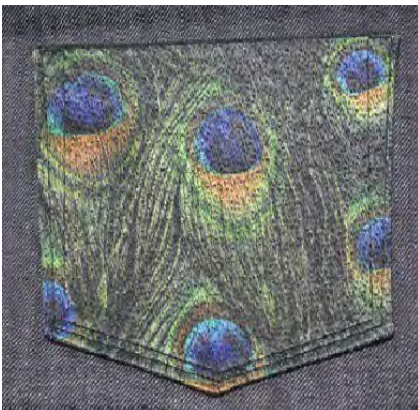
which we could push the boundaries with respect to the color gamut.”

After researching wide-format, high-speed sublimation printers and seeing various brands in action at tradeshow, Orea and Shafigi employed a process of elimination to determine the one that would be the best fit for their operation in terms of volume and the types of ink it could print. “The Mimaki TS300P-1800 printer was the only one that could provide the color and speed we had to have,” says Orea.

“We were particularly impressed with both the Mimaki TS300P-1800 ink system and the colors that could be achieved with the proprietary Mimaki ink. The transfers we test printed produced much deeper and more vibrant colors than those we printed on other brands of dye sublimation printers,” Orea asserts.



“Another thing we really like about the Mimaki TS300P-1800 printer is the large-capacity, two-liter bulk ink cartridges that are standard in CMYK. We also like the way the system is designed. The inks come in plastic, vacuum-sealed cartridges, which are loaded in docking stations where they’re completely isolated and not exposed to any air, moisture, or contaminants. When the ink flows into the machine, each color goes through a different set of dampers to ensure that the ink has a consistent flow and pressure before it starts printing on the media. There’s no spillage, waste or mess.” The design also saves time, Orea notes, by eliminating the need to refill individual cartridges more frequently.



“And with the TS300P-1800, once the machine is set up and printing, you can walk away or even run it ‘lights out,’” says Orea. “If it senses that there is no more media to print on, it will shut off.”

After deciding on the new TS300P-1800 printer, which was developed specifically for the textile printing industry, Orea found that Mimaki was just as eager to push the envelope as E&R was. “We



told Mimaki that we wanted to use the machine aggressively and push it to its limits, and they were looking for a company to do just that,” says Orea.

Participating in Mimaki’s Early Adopter Program, E&R partnered with Don Lightfoot of Cypress, California-based distributor CalComp Solutions to address its unique needs. “For example,” Orea notes, “they went above and beyond the call of duty in developing and creating a specific ICC profile and individual setting on the Mimaki printer for each of the five major fabrics on which we do a high volume of printing. They ran a gray balance, linearization, and calibration target test for each of these materials to make sure we would be able to hit every color accurately in order to provide the highest level of service to our customers in turn. We’re still working with them to further refine and expand our capabilities.”

In addition to the on-site training on the printer provided by Mimaki USA, Orea, Shafigi, and E&R’s graphic artist/print production manager also received technical support from CalComp Solutions. “There was a learning curve that we had to overcome, but the help was available to do it.”

Currently, E&R is doing upward of 90 percent of its volume production on the TS300P-1800 printer, including roll-to-roll goods as well as cut-and-sew pieces. The



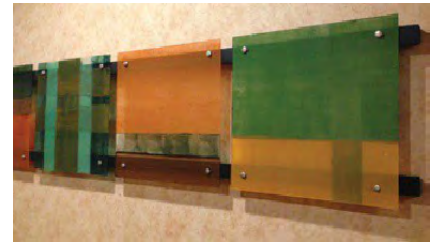
CJV30 printer/cutter is used primarily for samples and smaller runs. In addition to working on achieving color-accurate proofs that are representative of rotary screen-printed output, E&R has developed innovative ways of merging sublimation with embroidery to boost efficiency and provide new creative options. The company is also successfully using sublimation on a number of nontraditional substrates. “We’ve been able to take images we’ve printed on the Mimaki and get complete coverage on carpeting and velvet using the roller press,” says Orea. “It’s about thinking outside the box, looking at different ways to put your capabilities to work, and experimenting.”

In keeping with this approach, E&R has further leveraged its newer digital capabilities by using the TS300P-1800 printer itself to promote them. Redesigning its lobby to showcase the new printer has proven a great way of letting customers know that the company offers sublimation. “Having this large machine humming and running gets people’s attention,” says Orea. “And being within view of our embroidery production area and graphics department gets them interested in different things we can do for them. It’s excellent ‘eye candy’ and an effective sales tool.



“The future is bright,” continues Orea. “Right now, our business is split 50-50 between sublimation and other types of decorating. The fashion industry typically has tight timelines. Having the right equipment, including our high-speed, wide-format sublimation printer that allows us to meet precise color requirements and a roller heat press to accommodate the output, is key to that. And based on our experience, the TS300P-1800 is the way to go.” ☑

Beyond Shirts - Soft Signage and Fabric Backlit Applications



T-Shirts and garments are typically what come to mind with direct-to-fabric and dye sublimation printing. But with changing technology and growing customer awareness of the possibilities, the applications are endless.

“Soft signage continues to evolve with every new technology we introduce,” says Michael Maxwell, senior manager, Sign and Graphics and Business Development and Marketing, Mimaki USA. “Mimaki has customers printing anything from backlit display graphics for retail P-O-P or tradeshows, to wallpaper, pop-up or pole banners, to flags.” He says that imaging hard or rigid substrates has become popular as well and is “utilized anywhere from retail spaces to cruise ships because of the durability and range of the images produced through this process.”

Adding soft signage to a print shop’s offerings can create myriad opportunities outside the typical signage market and cuts down on shipping time and cost. “Now PSPs can produce a single backlit cabinet for a retail space, and then quickly reproduce images on fabric to stretch in that frame,” Maxwell says, adding that backlit fabric graphics are lighter and easier to ship than standard plastic prints.

“These types of applications can also create a demand for signage that can be hung and stored easily on-site, and are more eco-friendly when disposed. The ability to add P-O-P, interior signage, and promotional items increases the potential of the PSP while utilizing the same technology and processes.”

For PSPs who are currently using solvent or UV printers, or who are accustomed to printing onto garments and other fabrics, the transition into offering soft signage to their customers “can be very easy,” says Maxwell. “There are many fabric providers in the market now offering specialty coated materials that can be used in a solvent printer or UV printer, as well as fabrics that can be used in a latex printer.”

As for those PSPs who are currently Mimaki customers, offering soft signage is even more of a simple and profitable switch. “Mimaki offers the widest range of printing technologies available,” says Maxwell, including dye sub, eco-solvent, latex, UV-curable, and direct-to-fabric printing equipment. “For us, it’s a matter of finding the right technology for the majority of [the customer’s] needs. For the most part, it’s as easy as ordering the right fabric for the printer and ink combination they use. Our customers can use Mimaki

technologies such as the JV150 and JV300 eco-solvent series for 54- or 64-inch widths, the TS300-1800 dye sublimation printer for 74-inch widths, or the UJV55-320 UV curable and TS500P-3200 dye sublimation printers for 126-inch widths.”

There’s also potential for dye sublimation outside of printing on apparel within promotional products, three-dimensional items, nameplates, and more industrial printing and product decoration.

Hitoshi Ujii, professor at Philadelphia University’s Kanbar College of Design, Engineering and Commerce, and former textile designer in New York City, is researching that potential. He helped establish the Center for Digital Inkjet Printing of Textiles in 2000 (now operating as the Center for Excellence in Surface Imaging) to provide proof-of-concept for digital textile applications. The Center houses six Mimaki machines, including roll-based textile printers, flatbeds, and solvent printers.

“The decorative and industrial printing markets are estimated at a combined revenue of \$300 billion per year and they’re moving more towards digital production and away from analog,” says Ujii. “It has the potential to bring economic benefits to manufacturers and their suppliers, and we want to study and promote that... [Mimaki] offers all the technologies and equipment necessary for decorative surface production on any substrate be it paper, vinyl, hard plastic, or fabric.” ■■



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