



HOW THE ACUITY PRIME UV FLATBED PRINTER IS GROWING KENO GRAPHICS' PLAYBOOK

IN 1990, brothers Dan and Bill Kennedy founded the boutique commercial printing and packaging company Keno Graphics. The Kennedys acquired their love of the industry from their father, a lifetime printer who introduced his sons to the world of printing.

Driven by its commitment to stay ahead of the curve in the ever-competitive printing industry, Keno continues to invest in leading-edge automation, workflow processing and other new technologies. In 2020, Keno Graphics joined forces with Bob Artino, the owner of Pixels2Press, to expand its presence in the large format space. Today, the Shelton, Connecticut, company and its team of long-term employees have become a leading printer in the higher education, not-for-profit, packaging and medical industries.

THE CHALLENGE

Right before the pandemic hit in 2020, Keno Graphics was researching vendors to find a flatbed printer to help build its newly created large format department. But, when the ability to attend live shows and demos disappeared because of COVID restrictions, the Kennedys took a deep dive into various industry sources, participated in peer group discussions and attended virtual demonstrations. With business booming pre-lockdown, Dan and Bill knew they had to make the right decision. Packaging had been a significant advancement for Keno Graphics, especially considering its recent partnership with Pixels2Press' Bob Artino. And then the world shut down

So, while many industries came to a halt, Keno's packaging clients still needed their work done and demand for its packaging services boomed. "We often joke that we inadvertently created COVID with our wide format department," says Dan, cofounder and President. "Despite the challenges, we were committed to expanding the department, even amid the uncertainty of the pandemic. This was a new department, so we wanted to make sure

we chose the right piece of equipment to support our company's reputation of superior client service, quality and efficiency."

THE SOLUTION

With its research in tow, the Keno Graphics team was able to start attending live demos that some vendors were offering. After Fujifilm offered to host the Keno team in its Hanover Park, Illinois. demonstration facility, one piece of equipment jumped out—the ACUITY PRIME 20 UV Flatbed printer. Everyone on the Keno side became enamored and started flooding the Fujifilm customer service team with questions. "We already had FUJIFILM a good look at several other machines out there, so we knew what we wanted," Dan says. "The Acuity Prime had pluses the other systems didn't have. The vacuum zones on it are outstanding. The PIN system

for registration for two-sided was a

huge feature for us. You can have the pins raise up, put the board exactly on the pins, and when you flip the board over, it is going to line up perfectly. It makes front and back printing really accurate."

THE RESULTS

One of the strongest features of the ACUITY PRIME is its ability to allow the Keno Graphics team to switch seamlessly between production speed and intricate art without compromising on fine details. "Work comes off, moves over to a flatbed cutter, and the work goes out the door," Dan says. "It's a beautiful, fast process. The clients only care about the end product, but when they come here for a tour, the light bulbs go off and they already love us for making their delivery, making their timeline, keeping them on budget, and giving them that confidence factor that they can go to sleep at night.

The Acuity can create ideas for them—open up their minds to what can be done and how it can be done better. The Acuity Prime lets us turn the light on for our customers. We needed a piece of equipment that could do everything, and the Acuity does everything for us."

Today, the Keno Graphics team is able to print on various substrates like glass, acrylic, and different metals, which would not be possible with a roll-fed system since mounting would compromise the

material's effect. "Shortly after installing the device, we had a client roll out a product called Clear, which wouldn't have been feasible with a roll-fed device," Dan says.

Another strong advantage

the ACUITY PRIME offers is maintenance. "It is straightforward in that it requires weekly and monthly checks that take only 15 minutes and half an hour, respectively," Artino says. "Daily nozzle checks and clearing are

standard, but manageable tasks. Fujifilm has been incredibly supportive, standing behind the machine with prompt tech support whenever needed. Overall, while every printer may encounter issues, Fujifilm's reliability and assistance have been outstanding."

FUJIFILM North America Corporation | Graphic Communication Division | contactgraphics@fujifilm.com | print-us.fujifilm.com



Find more information at:
print-us.fujifilm.com







The All New, Game Changing LED UV Hybrid Machine from FUJIFILM

With a design based on the award-winning ACUITY PRIME™, the Prime Hybrid provides first-class performance, versatility and ultra reliability for a wide range of media.

The ACUITY PRIME Hybrid is a true hybrid machine, which means there is no trade-off and none of the compromise that you would find in other machines when switching between rigid and roll media.



CONTENTS



MAY-JUNE 2024 VOLUME 29, ISSUE 3

BIG PRODUCTS

LATEST RELEASES

Highlights include Epson P-series printer, Roland DG's CAMM-1 GR2 series, Mimaki CFX series and more.



THE BIG STORIES



- Creating an Artful Room Explore new and profitable opportunities in digital wallcoverings.
- Improving Sign Shop Versatility with UV Flatbed Printing

Insight into new features to future proof the investment of a printer.



SMALL THINGS SPECIAL FEATURE PAGE 18
MEAN BIG PROFITS

Be a part of the manufacturing revolution with a microfactory.

BIG COLUMNS



KEVIN BAUMGART Catering to a New Clientele

> 5 current customer revenue generators you likely aren't thinking about.

JAY ROBERTS Understanding UV Printer Trends and Innovations

On-trend capability and hydbrid flexibility are just two enhancements to this type of wide-format printing.

DEBORAH SEXTON 7 Things to Know About Wide-Format Latex/ Resin Printers

Wide-format printers that have the greatest number of applications and profitability could be latex/resin for your business.

RACHEL NUNZIATA Beyond Décor

Why thinking long term yields higher value results.

6 BLUEPRINT

Eric Hogue of ALD Decal & Graphics achieves balance between work and life as a small business owner.



ON THE COVER: Cover image courtesy of Mimaki USA.

bigpicturemag.com

Where you'll find even more images, insight, and inspiration.

bigpicturemag.com/bulletins

Become a more effective print service provider by reading our weekly newsletters.



ALSO INSIDE

- 6 EDITOR'S NOTE
- 8 CALENDAR
- WIDE ANGLE
- BIG BUSINESS
- 30 TIP SHEET
- 4 TRUE TALES
- 43 DO YOU OR DON'T YOU
- AD INDEX

bigpicturemag.com

SPONSORED CONTENT

CREATE CUSTOM, COMMERCIAL USE WALLCOVERINGS WITH PRESTOTEX

The USA-made, wide-format print media PrestoTex is the perfect blank substrate for custom wallcoverings. The removable and repositionable print media is ideal for temporary, seasonal, marketing campaigns and event promotions or permanent branding and design installations. Commercial interior designers and print shops favor the media for its superior quality and economical pricing. PrestoTex has long-lasting durability and has been installed in high-traffic areas like gyms, lobbies, tradeshows, and restaurants.

PrestoTex will not shrink, curl, or rip over time. The peel-and-stick adhesive backing makes installation quick and easy, with only a small squeegee and ladder needed. It also makes removal a breeze when you're ready to change out the printed design by simply peeling back the installed media.

PrestoTex is opaque and thick, made of premium polyester, and available in 10-mil and 17-mil, perfect for covering wall imperfections. White is the most popular media color variant,

but PrestoTex is also currently available in gold, iridescent, and silver, which can add shine and sheen to any project.

PrestoTex is fabricated as a safe, non-toxic media without PVC, lead, or phthalates. In addition, the wide-format media is compat-

prestotex.com.

ible with UV, eco-solvent, latex, and solvent inks to create bright, bold designs, large-scale black-andwhite photo reprints, and everything in between. All orders placed in the 48 contiguous US states

ship free directly from the Pennsylvania-based manufacturer. Want to try PrestoTex? Order a sample roll or request a free sample swatch book by visiting Photo credit: Eileen Tognini Design / Artwork by Maria R. Schneider x Caren Goldstein of Concept Factory

PRESTOTEX

PRINT MEDIA

PrestoTex.com



REQUEST A SAMPLE SWATCH BOOK OR SHOP ONLINE



SMART TIPS FROM THIS ISSUE

- 1. With its ability to print on a wide variety of substrates and 3D objects, UV printing offers exceptional versatility. Users can personalize and customize materials and objects in a range of sizes. (Jay Roberts,
- 2. Latex and resin printers deliver prints that can withstand the rigors of their environment including UV exposure scratches and abrasions. (Deborah Sexton, 44)
- Dimensional consistency in wallcoverings can be a problem. Heatbased evaporative technologies for curing and drving can lead to media deforming. (Patrick Donigain, 22)
- 4. The barriers to entry into the just-intime manufacturing seament are at historical lows. Through collaboration, you can customize, personalize, or region alize products. (Josh Hope, 26)

UNCOVERING WALLCOVERINGS TRENDS

Sustainability and innovative wide-format digital printing equipment take center stage.

don't know about you, but I love a reason to go to the beach in the dead of winter. I get to put up my puffy parka and relish in the turquoise waters and white sand beaches of Florida's Emerald Coast. So, I was more than thrilled to have been invited to the Wallcoverings Association annual meeting in Clearwater this January.

There, I met manufacturers, distributors, and suppliers of all kinds of media and products for awe-inspiring wallcoverings while learning about 2024 trends. It was a blend of educational sessions and networking as I listened to the presentations in earnest and hob-knobbed with new friends in this sector of the wide-format digital printing market. One of the most insightful discussions was about the intersection of vinyl and sustainability. During the presentation, industry news regarding regulatory updates and sustainability were shared, alongside an update from the Vinyl Institute.

Expanding on the topic, this issue's feature, "Creating an Artful Room," by contributing writer Patrick Donigain looks at the production side of wallcoverings. "This marketplace is transitioning from classic analog wallpaper technologies to highly capable wide-format digital printing technology that excels at short and customized runs" he says.

Is your shop creating beautiful wallcoverings? Shoot me an email. I'd love to hear from you and see some examples. Also, consider joining our Brain Squad, a group of your printer peers who we survey to get insights into what's going on in your world. We often publish results of specific questions in the magazine so this is your chance to be heard. Sign up at bigpicturemag. com/brainsquad.

BIG PICTURE Vol. (ISSN 1082-9660) is published six times annually (Jan/Feb, Mar/April, May/Jun, July/Aug, Sept/Oct, Nov/Dec) by SmartWork Media, 28 Valley Rd, Ste. FIG. FIG. 10 WE VOI. (ISSN 1082-9600) Is published six times annually (Janyl-ed, Mar/April, May)Jun, July/Aug., Sept/UCT, NoV/Dec.) by Smart/Work Media, 28 valley Rd, Ster.

1, Montclair, NJ 07042. No charge for subscriptions to qualified individuals. Annual rate for subscriptions to non-qualified individuals in the U.S.A. SOO U.S.D. in Canada
\$85 U.S.D.; all other countries \$111 U.S.D. Printed in the U.S.A. Copyright 2023, by SmartWork Media. All rights reserved. The contents of this publication may not be
reproduced in whole or in part without the consent of the publisher. The publisher is not responsible for product claims and representations. Periodicals Postage Paid at
Newark, NJ. and at additional mailing offices. POSTMASTER. Send address changes to: Big Picture, PO Box 3060, Northbrook, IL 60065-3060. For single copies, back
issues, or subscriptions: BP@omeda.com, Fax: (847) 763-9030, Phone: (847) 504-8166. New Subscriptions: bigpicturemag.com/subscribe.



BP@omeda.com 847-504-8166

SUBSCRIPTION SERVICES bigpicturemag.com/subscribe bigpicturemag.com/renew

THE TEAM

FDITORIAL

EDITOR-IN-CHIEF Marcia Derrybern

marcia.derryberry@smartw

COLUMNISTS: Kevin Baumgart, Chris Burslem, Patrick Donigain, Josh Hope David Lopez, Rachel Nunziata, Jay Roberts,

EDITORIAL ADVISORY BOARD: Brian Adam, Barbara Chandler Allen. Rvan Clark. Kristi Duvall, Diana Herrera, Brian Hite, Robert Kissel, Chris Laniak, Kristin Lanzarone, Morgen Masciana. Carmen Rad. Michael Sanders, Gary Schellerer, Elaine Scrima, Jon Sherman, James Swanson, Carol Yeager

SALES EXECUTIVE

edia.com. 847-708-5628

DIRECTORY & CLASSIFIEDS ACCOUNT

vernita.johnson@smartworkmedia.com, 513-263-9313

CREATIVE

ART DIRECTOR

PRODUCTION MANAGER

DESIGNERS

Anton Lin, Sunee Taweekitrungpaiboon

WEB DESIGN EDITOR

CONTENT STUDIO

CONTENT STUDIO DIRECTOR Barbara Moss

CONTENT STUDIO MANAGER

MARKETING MANAGER

barbara@smartworkmedia.c

DESIGNER Mars Legarde

OPERATIONS

RUSINESS MANAGER Suttinee Saenrak

EXECUTIVE

PUBLISHER Matthiis Braakman

mb@smartworkmedia.com, 212-981-0242

VP, GROUP BRAND DIRECTOR

GROUP EDITORIAL DIRECTOR

FOUNDER

EXECUTIVE DIRECTOR

VP MARKETING OPERATIONS





MAY/JUNE BIG DATES



 If you're in the graphics business, you can *never* have enough real estate customers. May is **NATIONAL MOVING MONTH**, and a good time to prospect for local real estate agents (especially all those new agencies continually popping up). Send a happy National Moving Month message, along with a portfolio of your relevant projects.

8 On NATIONAL RE-CEPTIONIST'S DAY, hit local businesses

with a flver and a small. but thoughtful, gift for the office administrator. (How about a branded stress ball?) In many small businesses, these are the people making

rush decisions on signs

and promotional graphics. Getting your business on their radar can pay big dividends.

Thought for NA-TIONAL SELFIE DAY: Encourage your

with their sign visible in the background. It's a classic branding shot they can run on their social media, then you can collect in a gallery to post on your social media and website.

clients to take selfie in

front of their businesses

28 It's unofficial NATIONAL FOOD TRUCK DAY. Created in 2016, this day celebrates and supports these small businesses across the country. If there's an event near vou, bring your appetite - and plenty of business cards!

MANAGER'S TO-DO LIST FOR MAY/JUNE

44 "I was trained as an elite gymnast for 14 years, but a long-term injury forced my retirement. Then COVID hit. I was going crazy at home with nothing to do. I knew I wanted to start my own business, but I wasn't sure how to go about it. My mom had an embroidery business when I was younger, so I had some knowledge of that. But not sign, wide-format, or shirt printing. Then it just came into mind, 'Let's print!"



WEEK 1 MAY 5-11

MANAGEMENT When did you last audit your list of key performance indicators (KPIs)? Are you tracking all that you should? Or more than you should? Do a deep dive to see what stats still make sense to see and use those metrics to adapt your business and achieve success. If you don't have the proper software, get it!

MAY 12-18

OPERATIONS Let's get organized. Discard

one item for every year you've worked at your store — pieces of paper you know you're never going to read or need, items gathering dust. old plastic goods. Been in business 17 years? That means 17 items.

WEEK 3 MAY 19-25

MARKETING Your best customers are your current customers. Identify your 200 top customers. Draft a plan to market to them in the second half of 2024.

ISSUES There's simply no escaping politicians this year. They are likely to come knocking on your door, showing up at the local Chamber of Commerce and dropping by your favorite drinking spot. Pay attention to the issues and introduce yourself. If they want to get or stay elected, they'll make time to meet you: a local independent business owner

WEEK 4

MAY 26-JUNE 1

EVENTS Local neighborhoods tend to come alive at this time of year. If you're in a lifestyle center, strip mall or downtown location, take the lead in organizing a community

MANAGEMENT The sun is out, the pace of work eases, it's the perfect. time for a staff-appreciation event. Consider something physical with an air of fear — like paintball or rappelling to promote bond-building.

WEEK 5 JUNE 2-8

OPERATIONS Write a letter to someone you admire. Somewhere down the track, it could result in a valuable new relationship. Or it might just be a way of making a person who inspires you feel good. Either way, you win.

WEEK 6 JUNF 9-15

FURNISHINGS Need any new office furniture? Now is the time to pick some up; showrooms are making room for new lines that come out in August.

IN-STORE Check your air-conditioning so that people coming in from outside are comfortable, not just the people working inside. This is also a good time to check and replace the air filters in your building's ventilation.

WEEK 7

JUNE 16-22

SAFETY Stage an advanced fire drill. Simulate a blocked exit and unconscious staff member. Critique staff performance. Include security consid-

WEEK 8

JUNE 23-29

TECHNOLOGY Take advantage of any slower periods to familiarize yourself with any new equipment or software you may have purchased. Become a master, not a slave of your technology.

MONTHLY PROJECT

End the Torment of Explaining

If you find yourself constantly having to explain your ideas or requests to those who

work for you, then you've got a management problem. First, you need to determine how much time you are spending on explaining things to your staff. Use a time-tracking app on your phone to find out how much time each month. Any



more than a couple of hours are too many. Domino's Pizza founder Tom Monaghan was famous for having monthly meetings up to two hours long with individual managers to work out their goals and action plans. The meetings

were incredibly detailed, but Monaghan figured he saved hundreds of hours a year getting on the same page with his staff the first time. Just to make sure those meetings are working, keep that stopwatch ann handy

bigpicturemag.com 6 MAY-JUNE 2024 MAY-JUNE 2024 7

AY-JUNE

MAY/JUNE BIG DATES



 If you're in the graphics business, you can never have enough real estate customers. May is NATIONAL MOVING MONTH, and a good time to prospect for local real estate agents (especially all those new agencies continually popping up). Send a happy National Moving Month message, along with a portfolio of your relevant projects.

8 On NATIONAL RE-CEPTIONIST'S DAY,

hit local businesses with a flyer and a small, but thoughtful, gift for the office administrator. (How about a branded stress ball?) In many small businesses, these are the people making

rush decisions on signs and promotional graphics. Getting your business on their radar can pay big dividends.

Thought for NA-TIONAL SELFIE DAY: Encourage your

front of their businesses with their sign visible in the background. It's a classic branding shot they can run on their social media, then you can collect in a gallery to post on your social media and website.

clients to take selfie in

28 It's unofficial NATIONAL FOOD TRUCK DAY. Created in

2016, this day celebrates and supports these small businesses across the country. If there's an event near you bring your appetite — and plenty of business cards!

MANAGER'S TO-DO LIST FOR MAY/JUNE

"I was trained as an elite gymnast for 14 years, but a long-term injury forced my retirement. Then COVID hit. I was going crazy at home with nothing to do. I knew I wanted to start my own business, but I wasn't sure how to go about it. My mom had an embroidery business when I was younger, so I had some knowledge of that. But not sign, wide-format, or shirt printing. Then it just



WEEK 1 MAY 5-11

MANAGEMENT When did you last audit your list of key performance indicators (KPIs)? Are you tracking all that you should? Or more than you should? Do a deep dive to see what stats still make sense to see and use those metrics to adapt your business and achieve success. If

you don't have the proper software, get it!

WEEK 2

MAY 12-18

OPERATIONS Let's get organized. Discard one item for every year

you've worked at your store — pieces of paper you know you're never going to read or need, items gathering dust. old plastic goods. Been in business 17 years? That means 17 items.

WEEK 3

MAY 19-25

MARKETING Your best customers are your current customers. Identify your 200 top customers. Draft a plan to market to them in the second half

ISSUES There's simply no escaping politicians this year. They are likely to come knocking on your door, showing up at the local Chamber of Commerce and dropping by your favorite drinking spot. Pay attention to the issues and introduce yourself. If they want to get or stay elected, they'll make time to meet you: a local independent business owner

WEEK 4

MAY 26-JUNE 1



MANAGEMENT The sun is out, the pace of work eases, it's the perfect time for a staff-appreciation event. Consider something physical with an air of fear — like paintball or rappelling — to promote bond-building.

WEEK 5

JUNE 2-8

OPERATIONS Write a letter to someone you admire. Somewhere down the track, it could result in a valuable new relationship. Or it might just be a way of making a person who inspires you feel good. Either way, you win.

WEEK 6

JUNF 9-15

FURNISHINGS Need any new office furniture? Now is the time to pick some up; showrooms are making room for new lines that come out in August.

IN-STORE Check your air-conditioning so that people coming in from outside are comfortable, not just the people working inside. This is also a good time to check and replace the air filters in your building's ventilation.

WEEK 7

JUNE 16-22

SAFETY Stage an advanced fire drill. Simulate a blocked exit and unconscious staff member. Critique staff performance. Include security consid-

WEEK 8

JUNE 23-29

TECHNOLOGY Take advantage of any slower periods to familiarize yourself with any new equipment or software you may have purchased. Become a master, not a slave of your technology.

MONTHLY PROJECT

End the Torment of Explaining

8 MAY-JUNE 2024

If you find yourself constantly having to explain your ideas or requests to those who

work for you, then you've got a management problem. First, you need to determine how much time you are spending on explaining things to your staff. Use a time-tracking app on your phone to find out how much time each month. Any



more than a couple of hours are too many. Domino's Pizza founder Tom Monaghan was famous for having monthly meetings up to two hours long with individual managers to work out their goals and action plans. The meetings

were incredibly detailed, but Monaghan figured he saved hundreds of hours a year getting on the same page with his staff the first time. Just to make sure those meetings are working, keep that stopwatch ann handy

bigpicturemag.com

SPONSORED CONTENT

POWERFUL BY NATURE

Agfa, a global leader in imaging and printing solutions, recently unveiled its enhanced and rebranded inkiet printer portfolio.

The printers have a fresh new identity under the umbrella theme "Powerful by Nature," each named after a formidable animal.

Just like the beasts they were named after, each inkjet printer has unique strengths built into its design, and delivers impressive results without compromise.

Experience the unbridled power of Agfa's latest inkiet printing solutions. Boost your business with a high-performing beast that delivers productivity, quality and versatility.



Create a vast array of eye-popping printsdisplays with varnish, window and floor graphics, multi-layer backlit, dimensional and textured prints, packaging, building wraps and more. We are only limited by our imagination.

GRIZZLY

All printers are seamlessly driven by Agfa's Asanti workflow software, a unique all-in-one print production hub that automates the entire print production process, saving time and money.

Let Agfa help you find the engine that best suits your specific needs. Put a beast to work

BRONCO A

CIERVO





Versatile wide-format inkjet printer for rigid and roll media

- > Hybrid
- > Up to 2250 ft2/h
- > Up to 126 in
- > CMYKcm + white





WideAngle

TRANSFORMING A RETAIL SPACE INTO THE ULTIMATE EXPERIENCE

Radio Flyer's first store enables an environmental graphics leader to reimagine retail's immersive possibilities.

BY MARCIA DERRYBERRY

hink back to your childhood and chances are, a Radio Flyer Original Little Red Wagon® is rolling around in one of those early memories. Today, 107-year-old Radio Flyer has begun a new chapter with its first flagship retail store, a 15,000-square-foot location that immerses shoppers into the iconic brand. It is nestled within the largest shopping center in Illinois, offering just the right amount of a nostalgic nod to its heritage while injecting fun interactivity for the next generation of Radio Flyer riders.

To help its first retail store live up to its promise of being "The Ultimate Radio Flyer Experience," ER2 Image Group and its Applied Surfaces division were selected to manufacture and install all environmental graphic assets. The Chicago area-based team achieved the visual appeal to represent the Radio Flyer brand, from wallcoverings to vinyl graphics to SEG frames with acoustic panels for noise reduction.

From the moment customers walk through the door, they can learn about the Radio Flyer story, test ride bikes, and even visit a service center to repair their e-bikes. Hanging above the entire multi-dimensional experience from the ceiling is a series of circular blue "clouds" custom-made from felt, giving each visitor the playful feeling of a perfect summer day. One of the focal points of the store is the wallcovering of a jumbo Radio Flyer red wagon with two massive tires that customers can sit inside. ER2 fashioned these tires in-house to scale from medium-density fiberboard, paint, and acrylics. "Radio Flyer provided a great deal of trust to ship their prized possessions and artifacts to us so we could figure out how to mount them to the walls best," says Jason Dillas, Managing Partner of Applied Surfaces.



BigProducts

The optical camera recognition system allows for precise cutthrough and/or kiss-cutting.

The touch display screen Supports a wide range of software provides an intuitive user formats including Al, Autocad, interface for easy operation. CorelDRAW, SignMaster, and more.



A PERFECT CUT

Conveyor Flatbed Cutter

A solution for precise and continuous roll-to-roll cutting in direct-to-film (DTF) and UV DTF printing, this versatile machine caters to a wide range of materials. These include DTF film, stickers, vinyl, paper, and carton boxes, offering kiss-cut, full-cut, and increasing capabilities. The Barracuda conveyor flatbed cutter's dual tool carriage with camera function allows for precise registration mark reading. www.arcusprinters.com

NEW TECHNOLOGIES

MARKETPLACE NEWCOMERS

New technologies in cutting and wide-format printing equipment take the spotlight in today's product offerings. Manufacturers and engineers have put a lot of R & D into introducing new machines to the marketplace for 2024, which are designed to make your printing shop more successful and efficient.



Available in 64-inch and 54-inch sizes, Roland DG's CAMM-1 GR2 series of large-format vinyl cutters feature added downforce, precision, and an intuitive cut operation. For use on vehicle graphics, heat transfer apparel, signs, POP displays, promos, and labels, stickers, and decals. www.rolanddga.com

CFX Production Including three models with a variety of tools for cutting and creasing, Flatbed Cutters the CFX series features higher speed for improved productivity; a mul-MIMAKI USA ti-tool head that reduces tool changes; pressure and position controls; curate cutting and ruled lining. www.mimaki.com





SureColor P-Series Printer EPSON

For larger color and black-and-white prints, you need increased print sizes and quality. The Epsuccessor to the SureColor P20000. Featuring an printhead and Epson's UltraChrome® PRO12 ink, it delivers a wide color gamut with great black density. www.epson.com

Flexi Complete Sign-Making Software

An all-in-one design, print-and-cut software for finishing tools, nesting enhancements, custom weed paths, and an improved user interface. www.thinksai.com





Sustainable Self-Adhesive Paper/ Film Products UPM RAFLATA

UPM Raflata sustainable products include a line large-format versatile printing, and sign films. The aluminum Dibond, and laminated MDF board. www.upmraflatac.com

bigpicturemag.com



EXPLORE NEW AND PROFITABLE OPPORTUNITIES WITH DIGITAL WALLCOVERINGS.

a blank canvas and the enigma that emptiness creates. But for those with the creative capacity to think outside of conventional borders, all it takes is the right tools to produce a truly customized tapestry of impressions.

It's no different in the interior décor space where possibilities are plentiful, and opportunity is endless. The boom in urbanization, skyrocketing demand for digital technology, and increasing expenditure on infrastructural activities has propelled digitally printed wallpaper into a market that is expected to reach \$10.43 billion by 2025—the largest area of growth within the interior décor market—according to a report from Energias Mar-

ket Research. This marketplace is transitioning from classic analog wallpaper technologies to highly capable wide-format digital printing technology that excels at short and customized runs.

However, before delving into the options available, certain factors demand careful consideration. The modern marketplace counts on PSPs to deliver premium, luxuriouslooking interior décor productions with dynamic color depth, distinctive embellishments, unconventional patterns, and abstract designs. Along with these features, the technology implemented clearly must meet the environmental needs of the commercial market in highly sensitive settings such as hospitals, schools, and other public places.

The Quest for the "Wow" Factor

When it comes to specialty interior décorproducts, modern consumers seek originality and a distinct "wow factor" tailored to their spaces. Digital technology offers a vast array of creative possibilities, enabling the realization of unconventional patterns that pop, high-resolution imagery, supersized graphics and geromatrics, abstract designs, and trendy ombré effects.

Moreover, consumers aspire to extend their creative expressions without constraints, applying these distinctive style statements across diverse settings — from residential abodes to corporate domains, from chic eateries to upscale hotels.

Fulfilling the Need for Speed

Furthermore, the contemporary interior design landscape demands a customer-centric approach, ensuring that wallcoverings and décor elements readily are accessible whenever inspiration strikes. With digitally printed wallcoverings, PSPs can meet the demands of rapid turnaround times and niche projects, catering to the dynamic needs of their clientele.

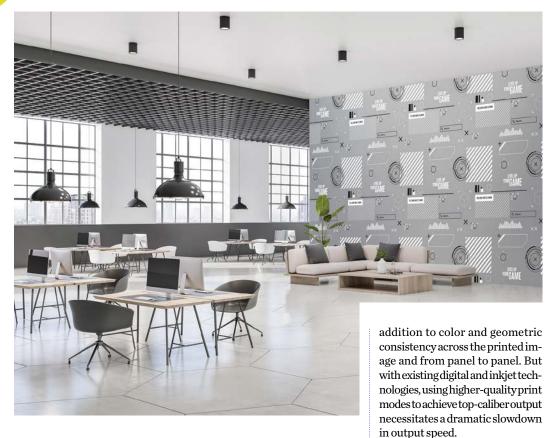
Not all approaches to printing wallcoverings are in sync with these trends, however. Nor do they put PSPs in a prime position to compete with (or join) the growing number of online graphics providers in this potentially profitable market space.

Continuing to use convention-



bigpicturemag.com

14 MAY-JUNE 2024



al approaches certainly presents myriad of challenges:

- Cost is a key issue. High-end 3.2 m UV and latex digital presses capable of producing an exceptional level of quality are expensive to own and run. With wallpaper offset presses —in addition to a huge footprint and huge price tag — tooling is costly to produce and store, and materials have a limited shelf life.
- ◆ Labor investments are considerable with analog approaches as well. Setup is time-consuming, and the entire production process requires constant hands-on management.
- Color accuracy and consistency are top concerns and can cause production headaches. With conventional processes and inks, colors can be difficult to match and repeat with precision.
- Production time makes analog processes economically unsuitable

for niche projects such as custom wallcoverings. They require highvolume production with generous timelines to be practical and profitable.

 Dimensional consistency can be a problem. Heat-based evaporative technologies for curing and drying can lead to media stretching or deforming.

In contrast, digital technologies offer a compelling solution, albeit with trade-offs between quality and productivity. While higher-quality print modes ensure precision and image fidelity, they often entail slower output speeds, compromising efficiency.

Quality vs. **Productivity**

Décor applications are subjected to close scrutiny, so they demand precision image reproduction, smooth output with no banding, and excellent repeatable color in maintain a high-quality print and reduces the need for lamination, additional costs, and job delays. When producing interior décor,

using ink and media that meets customer certification requirements is a must. These requirements include GREENGUARDGOLD, ASTM Type II, ISO Odor Testing, AgBB VOC, and even Prop 65.

Beyond meeting these requirements using a system that can add embellishments such as spot gloss can differentiate your services and lock in customers. Embellishmentscan take your creative endeavors a step further by generating a premium effect that creates higher profits.

Below are things to think about when contemplating moving into the digital wallcovering market:

- Media distortion can cause panels to misalign. This may be the result of heat and stretch during the printing process.
- Color consistency resulting from printhead wear /nozzle fatigue, ink coalescence (merging) between individual ink drops, and/or lack of control over dot gain.

Production speed can be a key

limitation for prevailing digital technologies. With latex and eco-

solvent inkjet systems, dot gain/

coalescence limits the volume of ink

that can be laid down at one time,

requiring more passes to achieve

the desired image quality. The only

options are to slow down the process

or sacrifice quality for higher out-

put speeds. Neither choice is ideal

for delivering what today's trend-

conscious wallcoverings customers

dig beneath the surface. For in-

stance, in the wallcovering space

where multiple tiles are printed

and installed side-by-side, strict

panel-to-panel size and color con-

sistency, along with reliable and

repeatable color production over

time, is critical. Dimensional sta-

bility plays a crucial role as well in

ensuring panel alignment and a

smooth installation process. And

ink durability - from abrasion and resistance to light fastness — helps

Yet, there's more to it when you

or the bottom-line demand.

- Potential requirements to use lamination or additional coatings to achieve durability requirements.
- ⇒ For more sensitive environments, GREENGUARDGOLD compliance, without listed restrictions.
- ASTM Type II validation for proof of durability in commercial environments.
- Ensuring equipment gives you the competitive advantage of faster turn times, and lower running costs.

In essence, while creativity forms the foundation of original productions, access to cutting-edge technology serves as the catalyst for transforming visions into reality. This is ushering in a new era of innovation and profitability in the realm of digital wallcoverings.

SPONSORED CONTENT

PERFORMANCE ACROSS THE BOARD.

AT A TIME when so many manufacturing processes are becoming digitalized, workflow automation has become an absolute necessity for efficient and profitable digital cutting/finishing. With increasing demand for just-in-time production, smaller order quantities, and ever-faster turnaround, the need for reliable automation becomes even more pressing. This is precisely what has been driving all of Zünd's development in recent

With the new Q-Line with BHS180 Board Handling System marking its tradeshow premiere at Drupa 2024 in Germany, Zünd has once again raised the bar for fully automated, industrial, pallet-to-pallet production. The latest, by now 4th generation of Zünd digital cutting systems features smart machine-control technology, a linear drive system for unprecedented cutting speeds without any loss of accuracy, and reliable, advanced workflow automation. The Q-Line with BHS180 is a



comprehensive, advanced system solution that takes digital production to a new level, enabling fully automated, uninterrupted, unsupervised digital cutting for packaging and display manufacturers.

The board-loading extension with UNDERCAM optical capture system, originally developed for the Q-Line, is now also available for Zünd's 3rd generation G3 cutting systems. It enables semi-automatic board feeding, job identification via QR code, and registration while production is ongoing. This significantly increases productivity, particularly in cases where cutting and creasing need to be done on the reverse side of the board.

Rounding out the Zünd Drupa portfolio, consider

the Robot PortaTable, a mobile off-load table equipped with a robotic arm for automated picking & sorting, along with workflow options for visual identification of cut parts and printed QR codes, all designed to simplify order tracking, facilitate cutting and kitting, and ensure smooth, efficient logistics—start to finish.



For more information on Zünd at Drupa, visit www.zund.com/en/news/drupa-2024



Q-Line with BHS180 delivers rock solid performance. Discover the latest innovation in digital cutting automation, designed for industrial production of packaging and displays. Perfect precision at unprecedented speeds. Digital cutting at the next level.









bigpicturemag.com



SMALL THINGS MEAN BIG PROFITS

Be a part of the manufacturing revolution with a microfactory.

BY JOSH HOPE, CONTRIBUTING WRITER

he concept behind a microfactory is that there are existing technologies — including digital printing and cutting, finishing, and fabricating — that can be assembled to create pop-up microfactories for a variety of finished goods. As a print service provider in the display graphics industry, you most likely use these technologies in your daily operation to create traditional signage and displays for your clients. The concept embraces collaborative manufacturing and process automation to create a flexible. functional platform that enables the production of a wide range of ready-to-market goods. The key idea is to bring together complementary technologies to produce a consumer-ready product. A microfactory provides an opportunity for you to branch out and bring more

revenue through the door. Microfactories have been gain-

Microfactories have been gaining interest and supporters for years. A research paper published by the Université du Québec found that "Given its versatility and high automation levels, the microfacCreate complete products with off-the-shelf raw materials such as this custom skateboard.





tory model can fill the gap between artisanal and mass production processes, boost the rate of innovation, and enable the local on-demand fabrication of customized products."

PROFIT FROM THE ON-DEMAND ECONOMY

We currently are amidst a manufacturing revolution. Technology that was once reserved for large corporations and research facilities now is available at the desktop level. Children are designing and building with 3D printers as a hobby and, for minimal investment, the means to manufacture are available to virtually anyone.

The on-demand economy is growing, attracting more than 22.4 million consumers annually who generate \$57.6 billion in spending, and is becoming too big an opportunity to miss. At the consumer level, most of this growth can be seen in online marketplaces such as Etsy, and in transportation through gig economy ventures such as Uber and Lyft. Why the shift? What and how we buy is changing. Buyers are redefining value, focusing on quality, and choosing personalized goods and services that deliver an experience, connect, and resonate with one's individual values.

The barriers to entry into the just-in-time manufacturing segment are at historical lows. Through collaboration and using complementary technologies, you can take advantage of this low cost of entry to customize, personalize, or regionalize products to sell to both the B2B and consumer markets.

USE EXISTING TECHNOLOGIES

Existing technologies that are probably on your production floor right now, put you in a unique position to capitalize on this shift in buying patterns by bridging the gap between the manufacturer and

SMALL THINGS MEAN BIG PROFITS

and tablet sleeves. Existing digital

printing and cutting technologies

for finished goods.

also can be used to create packaging

Each of these applications uses

together to manufacture a product.

multiple technologies that work

can thrive, especially when work-

flow automation is incorporated

into the mix. This can be as simple

as a jig-based workflow for flatbed UV-LED printers, variable data for

personalization, or rules-based au-

tomation. By defining the workflow

processes up front, the number

ing the ability to compete in the

customer ordering and a fulfill-

ment system for product delivery

provides a complete manufacturing

marketplace and remain profitable.

Utilizing the microfactory concept and adding a web-based store for

dramatically, greatly increas-

of human touches can be reduced

By bringing together efficient, production-focused machines, you

SPECIAL FEATURE

consumer. This helps deliver unprecedented just-in-time production, developing true customer intimacy through personalization, and reducing cost and overhead while also shortening time-to-market. You can find new revenue opportunities and leverage products you own today to start a microfactory. It can be a business of its own or be used as a model and scaled up for larger production runs.

The printers, cutters, and finishing equipment you use now are designed for versatility and can easily and quickly be repurposed for another product, customer, or material. This creates a very agile production facility that can respond to market shifts and changes in customer demand in a way that large companies cannot. Stock can be kept at a minimum, and even more importantly, can stay in a blank state and be shaped, printed,



Given its versatility and high automation levels, the microfactory model can fill the gap between artisanal and mass production processes."

Université du Québec research paper

Produce mass-customized goods using existing digital printing cutting and finishing



and marked just in time for shipment to the customer. This keeps stock from becoming stale and helps to prevent loss of profit due to swift changes in market demand. From a competitive standpoint, focusing on technologies at this scale



Create stylized gifts and a matching box using your existing equipment and technologies.

allows for agility and flexibility. Working in this way can create an environment that is quickly adaptable to new and niche markets that a larger company can't afford to address due to the volume commitments required to pay for the larger

MICROFACTORY EXAMPLES

As a print service provider, you can transition from short runs to higher volumes using flatbed technology to become a promotional products decorator and supplier. Flatbed printers and custom jigs - which also can be made using digital printing and cutting technology - are used to produce a range of branded products including mobile accessories for cell phones and tablets, mini speakers, power banks and chargers, phone cases, and collapsible phone stands.

Think of a boutique guitar effects pedal company. This operation could create the pedal enclosure from wood shaped by a CNC machine, print the control graphics using a flatbed UV printer, and then laser-etch the owner's name or serial number on the back side. This creates a highly customizable premium product using multiple high-end technologies all for a very reasonable investment. By adding a web-based ordering system on the front end, and simple product





Using various technoloable premium products such as stompboxes can be created.

Starting with customprinted containers such as these, a microfactory

can grow to also offer custom mugs or totes.



How and what consumers buy is changing. We see more value in quality, personalized goods and services that deliver an experience, connect, and resonate personal expression. With a microfactory, you can utilize existing digital technologies to deliver on-demand, customized products within hours instead of weeks or months. There is no time better than now to explore the opportunities around you and get in on the ground floor of the rapidly growing on-demand manufacturing market.

fulfillment on the back end you can create an agile manufacturing business — a microfactory — that can be both flexible and competitive.

Another example is creating custom sports gear such as baseball helmets or skateboards. You can use UV-LED flatbed or UV DTF (direct-to-film) printing to decorate the underside of a skateboard deck, the trucks, and wheels: and then cut grip tape, using a flatbed or laser cutter, to produce the graphic for the topside of the board. After assembly and only about 30 minutes of active labor, you have a customized, premium-priced item ready for immediate sale, with minimal materials investment.

Digital textile printing is ripe for a microfactory scenario either by using direct-to-fabric or dye sublimation transfer processes with a heat press, plus sewing equipment and labor to create custom goods such as backpacks, messenger bags,





JOSH HOPE is a print professional with more than 35 years of experience in the printing industry. As Director of Marketing at Mimaki USA, he leads the business development teams for the Sign & Graphics, Textile & Apparel, Industrial Printing, and 3D segments and is responsible for the ompany's overall marketing program.

bigpicturemag.com 20 MAY-JUNE 2023 MAY-JUNE 2023 21



Future-proof your printer investment by focusing on these features.

BY DAVID LOPEZ, CONTRIBUTING WRITER



DAVID LOPEZ is a product manager at Epson America with more than a decade of product development and product marketing experience in the printing and digital imaging industry. Working in the Professional Imaging division at Epson America, David is responsible for solvent, resin, and UV largeformat printing products.

he past few vears have underscored the importance of wide-forma signage throughout various industries. Signage printing stands out in its ability to cater to both B2B and B2C clientele, offering nearly endless opportunities ranging from trade show signage to billboards, restaurant menu boards to tactical restroom signage, window clings, floor graphics, and T-shirts and promotional goods.

Sign shops require workflow versatility to help customers share their message where they want, whether that's in-store signage for a brick-and-mortar location or outdoor ads at a bus stop or a logo on a T-shirt. Regardless of application, image quality is imperative for creating an impactful first impression. To offer true versatility and meet the breadth of incoming orders, sign shops rely on multiple printing solutions and a productive workflow.

Today, UV flatbed printers offer many advantages that result in greater output capabilities. Given the options on the market, following are a few features to consider when looking for a flatbed printer to complement your signage workflow.

INK FORMULATION

When researching ink technology for a UV flatbed printer, consider

the number of inks and color gamut, as well as the versatility of the ink set. Currently, there are flatbed printers ranging from 4-color CMYK ink sets to 10-color ink sets that include colors such as red, gray, opaque white, and varnish. These extended ink sets allow for an expanded color gamut to better match branding color requirements and provide the ability to produce bright, colorful, prints with smooth gradations. The addition of white ink is ideal for producing standout results on transparent and dark media, and varnish helps to create visual experiences and tactical prints for clients.

Another factor to consider is how many UV and direct-tosubstrate inks require customers to select a specific formulation for either rigid or flexible materials. These ink formulations have specific adhesion properties that align with particular substrates and thereby can limit the output and project capabilities. Keep in mind the type of output the sign shop is currently producing, as well as future opportunities, to ensure that the selected formulation is best suited for current and future needs.

For example, one of the most versatile ink technologies is a semi-flexible formulation. This mixture adheres to both rigid and flexible material, including everything from traditional plyboard, to flexible polystyrene, corrugated plastic and wood, reducing limitations to output and future-proofing the investment.

Regardless of ink type, checking in with manufacturers about pretreatment requirements prior to printing can be a critical step in the print process. Some inks will require pretreatment on all substrates, while others will only require it on certain materials. Often untreated metals or items that may have a lot of friction, such as a cell phone cover, will

require a pretreatment to help promote ink adhesion, regardless of the manufacturer.

MEDIA VERSATILITY

Flatbed printers are reputable for their versatility and hold the potential for a robust ROI. Their versatility to print items ranging from tumblers, golf balls, and cell phone cases to outdoor real estate signage and wooden menu boards not only expands a print shop's product offerings, but also enhances its profit potential.

To ensure a flatbed printer can handle a vast array of projects, it's important to access its capability in handling different media thicknesses. There are cost-effective flatbed printers that can diversify product offerings by supporting both thick and thin substrates, further increasing output potential for clients.

EASE OF USE

Investing in a UV flatbed printer is a decision with long-term implications; it's essential to research available features and identify which will work with your established workflow. Like purchasing a new car, each printer manufacturer offers different features on different models.

A significant benefit of UV flatbed printers — which directly enhances productivity and user convenience - lies in their accelerated drying times. To ensure this is the case with the model in consideration, look for a printer that includes an LED light for curing prints inside the printer. There are manufacturers who have gone through rigorous testing to find and program optimal drying times and methods suitable for various media, so printer operators can redirect their attention to other projects, thereby maximizing overall operational



• A significant benefit of UV flatbed printers — which directly enhances productivity and user convenience — lies in their accelerated drying times. To ensure this is the case, look for a printer that includes an LED light for curing prints inside the printer.



• Sign shops require workflow versatility to help customers share their message where they want, whether that's in-store signage for a brick-and-mortar location or outdoor ads at a bus stop or a logo on a T-shirt.

efficiency and workflow management.

For increased durability and reliability year-round from frigid and dry warehouse temperatures in the winter to humid and sticky in the summer – look for a built-in ionizer. Ionizers remove static electricity that may have collected on the substrate and in the printer, to increase printer reliability and output quality. This is a feature often overlooked, but essential for print shops in harsh climates.

Additional ease of use features that help increase productivity and shop output include quick loading application tools and automatic thickness adjustments to detect and adjust printhead alignment for the loaded media. When combined with a multi-zone vacuum, the printer itself can align and hold media in place for printing, with no taping required. The automated alignment and secure media hold streamlines the printing process



and reduces the likelihood of human errors, minimizing the need for costly reprints.

EXPANDING PROD-UCT OFFERINGS

In addition to printing direct-toobject, UV flatbed printers also can print direct-to-film (DTF). This is an emerging trend that enables a UV flatbed printer to print to UV transfer film, followed by transferring the image

to the final product. Transferred prints are permanent and hold the same qualities as printing direct-to-object or substrate, making it ideal for rounded objects such as mugs and tumblers, as well as larger applications such as sail boats.

Flatbed printing also offers the unique ability to create a multi-layer print, resulting in raised output with a tactile feel. This is another emerging trend for the industry, and it's currently being used for signage, such as bathroom signs, with

growth potential in wall installations and fine art reproduction.

The demand for versatility will continue to increase just like the demand for new technology. Customers like to be loval, and it's easier to retain a customer than onboard a new one.

As roll-to-roll signage customers' orders change, and customer expectations continue to increase, having a flatbed printer can help ensure a printshop is able to meet their changing demands by introducing the ability for thick signage boards, foam boards, tactile prints, and personalized rigid objects, some with the assistance of DTF transfer printing.

When looking to purchase a flatbed printer, consider both the incoming customer demands today, as well as what may come. Reliable flatbed printers should last years and be able to easily integrate into an existing workflow and operate for years, producing high-quality, sellable output.





SOME MIGHT SHY away from a blank canvas and the enigma that emptiness creates. But for those with the creative capacity to think outside of conventional borders, all it takes is the right tools to produce a truly customized tapestry of impressions.

It's no different in the interior décor space where possibilities are plentiful, and opportunity is endless. The boom in urbanization, skyrocketing demand for digital technology, and increasing expenditure on infrastructural activities has propelled digitally printed wallpaper into a market that is expected to reach \$10.43 billion by 2025—the largest area of growth within the interior décor market – according to a report from Energias Market Research. This marketplace is transitioning from classic analog wallpaper technologies to highly capable wide-format digital printing technology that excels at short and customized runs.

However, before delving into the options available, certain factors demand careful consideration. The modern marketplace counts on PSPs to deliver premium, luxuriouslooking interior décor productions with dynamic color depth, distinctive embellishments, unconventional patterns, and abstract designs. Along with these features, the technology implemented clearly must meet the environmental needs of the commercial market in highly sensitive settings such as hospitals, schools, and other public places.

The Quest for the "Wow" Factor

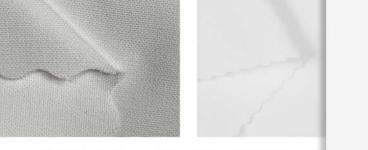
When it comes to specialty interior décor products, modern consumers seek originality and a distinct "wow factor" tailored to their spaces. Digital technology offers a vast array of creative possibilities, enabling the realization of unconventional patterns that pop, high-resolution imagery, supersized graphics and geromatrics, abstract designs, and trendy ombré effects.

Moreover, consumers aspire to extend their creative expressions without constraints, applying these distinctive style statements across diverse settings — from residential abodes to corporate domains, from chic eateries to upscale hotels.

Fulfilling the Need for Speed

Furthermore, the contemporary interior design landscape demands a customer-centric approach, ensuring that wallcoverings and décor elements readily are accessible whenever inspiration strikes. With digitally printed wall coverings, PSPs can meet the demands of rapid turnaround times and niche projects, catering to the dynamic needs of their clientele.

Not all approaches to printing wallcoverings are in sync with these trends, however. Nor do they put PSPs in a prime position to compete with (or join) the growing number of online graphics providers in this potentially profitable market space.





WE KNOW NATURAL FIBERS.

Your natural fiber needs... fulfilled. TVF offers a vast selection of apparel and home décor textiles in-stock, decades of real world expertise, and dedicated partnership to help you grow.

> **CONTACT US TODAY FOR** MORE INFORMATION.







Continuing to use convention-

SPECIAL FEATURE



al approaches certainly presents myriad of challenges:

- ᢒ Costis a key issue. High-end 3.2 m UV and latex digital presses capable of producing an exceptional level of quality are expensive to own and run. With wallpaper offset presses -in addition to a huge footprint and huge price tag - tooling is costly to produce and store, and materials have a limited shelf life.
- Labor investments are considerable with analog approaches as well. Setup is time-consuming, and the entire production process requires constant hands-on management.
- Color accuracy and consistency are top concerns and can cause production headaches. With conventional processes and inks, colors can be difficult to match and repeat with precision.
- Production time makes analog processes economically unsuitable

for niche projects such as custom wallcoverings. They require highvolume production with generous timelines to be practical and profitable.

 Dimensional consistency can be a problem. Heat-based evaporative technologies for curing and drying can lead to media stretching or deforming.

In contrast, digital technologies offer a compelling solution, albeit with trade-offs between quality and productivity. While higher-quality print modes ensure precision and image fidelity, they often entail slower output speeds, compromising efficiency.

Quality vs. **Productivity**

Décor applications are subjected to close scrutiny, so they demand precision image reproduction. smooth output with no banding, and excellent repeatable color in

addition to color and geometric

consistency across the printed im-

age and from panel to panel. But

with existing digital and inkjet tech-

nologies, using higher-quality print

modes to achieve top-caliber output

necessitates a dramatic slowdown

Production speed can be a key

limitation for prevailing digital

technologies. With latex and eco-

solvent inkjet systems, dot gain/

coalescence limits the volume of ink

that can be laid down at one time.

requiring more passes to achieve

the desired image quality. The only

options are to slow down the process

or sacrifice quality for higher out-

put speeds. Neither choice is ideal

for delivering what today's trend-

conscious wallcoverings customers

Yet, there's more to it when you

dig beneath the surface. For in-

stance, in the wallcovering space

where multiple tiles are printed

and installed side-by-side, strict

panel-to-panel size and color con-

sistency, along with reliable and

repeatable color production over

time, is critical. Dimensional sta-

bility plays a crucial role as well in

ensuring panel alignment and a

smooth installation process. And

ink durability - from abrasion and

resistance to light fastness — helps

or the bottom-line demand.

in output speed.

Below are things to think about

- Media distortion can cause panels to misalign. This may be the result ing process.
- Color consistency resulting from printhead wear / nozzle fatigue, ink coalescence (merging) between individual ink drops, and/or lack of control over dot gain.
- For more sensitive environments, GREENGUARDGOLDcompliance, without listed restrictions.
- ASTM Type II validation for environments.
- Ensuring equipment gives you the competitive advantage of faster turn times, and lower running costs.



using ink and media that meets customer certification requirements is a must. These requirements include GREENGUARDGOLD, ASTM Type II, ISO Odor Testing, AgBB VOC, and even Prop 65.

Beyond meeting these requirements using a system that can add embellishments such as spot gloss can differentiate your services and lock in customers. Embellishments can take your creative endeavors a step further by generating a premium effect that creates higher profits.

when contemplating moving into the digital wallcovering market:

- of heat and stretch during the print-
- Potential requirements to use lamination or additional coatings to achieve durability requirements.
- proof of durability in commercial

In essence, while creativity forms the foundation of original productions, access to cutting-edge technology serves as the catalyst for transforming visions into reality. This is ushering in a new era of innovation and profitability in the realm of digital wallcoverings.



he concept behind a microfactory is that there are existing technologies — including digital printing and cutting, finishing, and fabricating — that can be assembled to create pop-up microfactories for a variety of finished goods. As a print service provider in the display graphics industry, you most likely use these technologies in your daily operation to create traditional signage and displays for your clients. The concept embraces collaborative manufacturing and process automation to create a flexible. functional platform that enables the production of a wide range of ready-to-market goods. The key idea is to bring together complementary technologies to produce a consumer-ready product. A microfactory provides an opportunity for you to branch out and bring more

revenue through the door.

Microfactories have been gaining interest and supporters for years. A research paper published by the Université du Québec found that "Given its versatility and high automation levels, the microfacCreate complete products with off-the-shelf raw materials such as this custom skateboard.





tory model can fill the gap between artisanal and mass production processes, boost the rate of innovation, and enable the local on-demand fabrication of customized products."

PROFIT FROM THE ON-DEMAND **ECONOMY**

We currently are amidst a manufacturing revolution. Technology that was once reserved for large corporations and research facilities now is available at the desktop level. Children are designing and building with 3D printers as a hobby and, for minimal investment, the means to manufacture are available to virtually anyone.

The on-demand economy is growing, attracting more than 22.4 million consumers annually who generate \$57.6 billion in spending, and is becoming too big an opportunity to miss. At the consumer level, most of this growth can be seen in online marketplaces such as Etsy, and in transportation through gig economy ventures such as Uber and Lyft. Why the shift? What and how we buy is changing. Buyers are redefining value, focusing on quality, and choosing personalized goods and services that deliver an experience, connect, and resonate with one's individual values.

The barriers to entry into the just-in-time manufacturing segment are at historical lows. Through collaboration and using complementary technologies, you can take advantage of this low cost of entry to customize, personalize, or regionalize products to sell to both the B2B and consumer markets.

USE EXISTING TECHNOLOGIES

Existing technologies that are probably on your production floor right now, put you in a unique position to capitalize on this shift in buying patterns by bridging the gap between the manufacturer and

bigpicturemag.com 26 MAY-JUNE 2024



LENTICULAR, VARNISH, AND MORE **ARE EASY WITH MUTOH'S UV-LED XPJ-661UF**





MUTOH's Patent Pending Lenticular 2.0 and Spot Lenticular 2.0 utilizes MUTOH's UH21 Varnish ink and the VerteLith RIP. along with the Award-Wining XPJ-661UF printer to print multiple layers of varnish ink to form lenticular lenses. This creates captivating visual effects such as transitions and actions, while adding depth and dimension to retail signage, packaging, tradeshow signage, wall art and more. MUTOH takes UV printing even a step further with the newly patented UV Local Dimming Control. This feature allows for precise control over gloss, semi-gloss, and matte varnish finishes in a single pass. This offers versatility in creating visually appealing prints with different gloss finishes enhancing the overall look and feel of the printed material.

www.MUTOH.com 1.800.99.MUTOH A @ O O B &

REQUEST FREE PRINT SAMPLE



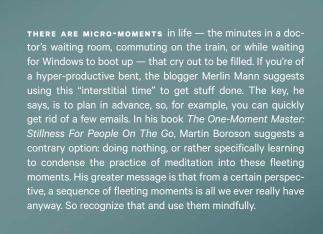
19"x23" UV-LED Printer

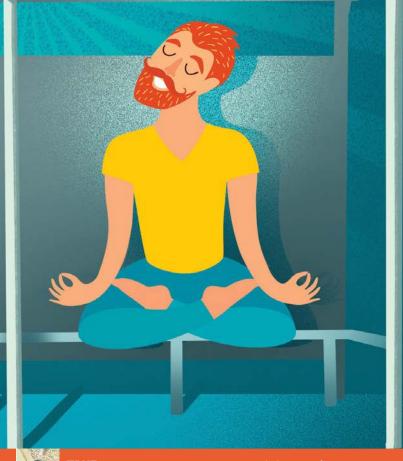


SELL MORE / SPEND LESS / MANAGE WISELY

BIG BUSINESS

THE BUS STOP DILEMMA







DO YOU OR Do you give to charity, or participate DON 'T YOU? actively in charitable causes? PAGE 43

ONE QUICK

Generally, how



TALES their team got a little too creative. PAGE 41

50%

INDUSTRY EXPERTS

KEVIN BAUMGART: Revenue builders. PAGE 32 RACHEL NUNZIATA: Relationship advice. PAGE 42 JAY ROBERTS: UV printer trends. PAGE 34 **DEBORAH SEXTON:** Latex/resin strengths. **PAGE 38**







often do you upgrade/replace your presses and other larger, more expensive equipment?

Everv 1-2 years

36% Everv 3-4 years

Everv 5+ years

When it breaks down

0%



bigpicturemag.com MAY-JUNE 2024 29

TipSheet



GET UNSTUCK

If you're procrastinating on a project, it's often because you don't know the next appropriate action. In such cases, it can help to ask yourself what it is that yaou need to find out, decide or do. "Usually the roadblock is one of those three things," productivity coach Liz Sumner told *INC*. "What information do you need to locate? What decision is up in the air and what are the choices? What needs to be done so that the rest of the pieces fall into place? Nine times out of 10, these questions will get you moving again."



SELF-IMPROVEMENT

Story-Worthy Moments

Each day, write down the most "story-worthy" thing that happened. It improves your memory, makes you more grateful and gives you more stories to tell, says productivity blogger Colby Kultgen.

PRODUCTIVITY

Force Your Focus

Does the endless flow of small items that need attending sink your day? Try embracing them. "Here are the rules: All work must be done in blocks of at least 30 minutes," writes Cal Newport, explaining his method for attaining what he calls "forced focus." You're free to abandon your most important work whenever you like, in favor of emails, minor errands and the like, but with a caveat: if you switch, you must stick to such "small stuff" for 30 minutes. The double benefit is that you "batch" your smaller tasks, clearing the decks more speedily, while creating a disincentive for getting distracted from the major ones.

MANAGEMENT

Read the Classics

Look for books that have stayed relevant for 30-plus years. "They have stood the test of time for a reason." says business author and venture capitalist Naval Ravikant.

CUSTOMER SERVICE

Turnovers Done Right

Tony Palmer of Palmer Signs has a great approach to turning over completed jobs with clients. And the first step is a thorough inspection -- check the color, look at the seams, bring the proof, and make sure everything is perfect. Palmer says his approach is, "Mistakes may happen ... they just don't leave the shop." If all is good, take quality photos of your work, post on social media, and tag the client (if you're connected and have permission). Only then should you call the client to let them know the vehicle is ready. When the

client arrives, walk them around the vehicle. Says Palmer, "This is a great time to share in their excitement." Palmer Signs also reminds customers how to care for a wrap and asks them to bring the vehicle back in 2-3 weeks so the team can look the wrap over. The final step is to thank the client and let them know they will be getting a link to leave a review.

COMMUNICATIONS Secure Vour

Secure Your Email

It's hard to overestimate the impact of email, but so much of its power goes under-utilized, because, simply put, no one tells us! Here's one for Gmail you should know: "Confidential Mode" for sensitive emails. It allows you to set a message expiration date, revoke message access at any time and require a verification code (sent by text) to open a message. Got a message you don't want shared? Simply locate the "padlock" icon at the bottom of your

message (usually it's near the blue "Send" button), choose your options and you're set to go.

SALES

Remind Yourself to Listen

Talk less, listen more. We know you've heard that before. But professionals who are smart and know what they are talking about are often the worst listeners even those who write about communication for a living! Best-selling business author Tom Peters, for example, calls listening "the bedrock of leadership excellence," but at the same time admits he's a terrible listener and "a serial interrupter." So, to help him stay focused on the other person, he writes the word "LISTEN" on the palm of his hand before walking into meetings. "The focus must be on what the other person is saying, not on formulating your response. That kind of listening shows respect for the other person, and they notice it," he says. Keep it in mind — or on your palm - the next time a business owner is trying to tell you what is wrong with their newly installed

MANAGEMENT

artwork.

Elicit Maximum Creativity If you want to foster ideas a your staff don't tell them

If you want to foster ideas from your staff, don't tell them to "be creative." That just causes people to freeze up. A much better approach, according to a *Businessweek* article on brainstorming, is to say: "Do something only *you* would come up with — that none of your colleagues, friends or family would think of." In experiments, this approach has been shown to yield twice as many creative responses.



WOMEN IN WIDE FORMAT AWARDS

Nominations are open for *Big Picture's* **9th Annual Women in Wide Format Awards!**

Big Picture magazine is now accepting nominations for the 2024 Women in Wide Format Awards. To honor the bold spirit of today's female leaders, Big Picture is looking for six accomplished industry women who, through their careers, industry involvement, and philanthropic roles, have sparked innovation, spurred business growth, improved their communities, and enhanced the digital printing industry. Nominees must hold a leadership position at a company that produces wide-format digital print as its primary function. Owners and/or employees of OEMs, distributors, and vendors are not eligible. Honorees will appear in the Big Picture magazine September/October issue and will be recognized at Printing United Expo in Las Vegas. The deadline to submit a nominee is JULY 1, 2024.



Nominate a Deserving Female Here.

bigpicturemag.com/womeninprint

COLUMNS BIG BUSINESS

MARKETING BY KEVIN BAUGMART

5 CURRENT CUSTOMER REVENUE GENERATORS YOU LIKELY AREN'T THINKING ABOUT

Increase revenues by connecting more effectively with the customers you already have.

'm often getting pulled into conversations with wide-format digital printer shop owners about wanting to build a stronger outbound approach to find and acquire new customers. I think it's the right strategy and you should focus on it. However, let's not forget who got you here. And let's not forget the potential revenue generation that you can get from focusing on your current customers.

Here are 5 strategies to cater to new clientele:

1. Create post-order automated email campaigns

Think about your post-order process today. Once customers obtain their completed orders, are you communicating with them? Most good printers are. And it's not just ad hoc. It's scripted, dialed, and automated. The goal here is to stay in front of them and top of mind. We don't want to be looked at as the company that just "sold them" and only communicates when they need something.

I'd recommend building a post-order email campaign of five to six touch points. These are simple, short emails sent over a period of time (maybe every two to three months.) Initial emails can focus on the 100% satisfaction of what they received, while later emails can focus more on other services and products you provide or educational content. Using the phone

almost always is best when reaching out and communicating with customers. But for this simple outreach, I'm a fan of some general emails.

Note: It's tremendously helpful to have an email marketing tool to execute this strategy. For most businesses, this needs to



KEVIN BAUMGART

SetSales, has eadership tartup and ntrepreneurial companies. He's elped dozens of printing companies of all sales and drive more revenue to their business. He holds an advisor role at multiple growtl companies and has managed more than 70. Kevin provides and consulting work for owners be an automated workflow where you just hit "send."

2. Schedule outreach based on certain criteria

The "It's been 11 months since you ordered..." email asking if they are going to purchase again has been an incredibly solid point of outreach for many printers. If you haven't done it before, it definitely will drive revenue.

You also can build campaigns around reaching out to folks who only have ordered from you less than three or four times. Or reach out to folks that haven't ordered in more than 12 months. You can entice them with a percent-off code or other incentives. It also doesn't have to be about an order ask. Your outreach can be highlighting a new product line or showcasing some recent designs. The goal is to stay in front of these customers and keep awareness of your shop's services top of mind for them.

3. Run QPR's with your top customers

Quarterly Partnership Reviews (QPR's) are a great way to stay in front of your top customers. For your largest customers (maybe the top 10%), having a quarterly





sit down can help strengthen the relationship and drive more revenue.

Here is my recommendation on what should be covered in a slide deck to accompany that meeting:

SLIDE 1

Title slide with the customer's logo.

SLIDE 2

Data/metrics about the relationship. It should be titled "Success We've Achieved Together" and share the average order size, number of orders, average turnaround time, etc.

SLIDE 3

Customer updates. These provide over-

view on what is new on their end.

SLIDE 4

Updates. Provide updates on your end about new products, new processes, new employees, etc.

SLIDE 5

Future looking. What does the next quarter hold? Where can you add more value? What can you do differently? What isn't working well, etc. You should spend 75% of your time on the QPR on this slide.

4. Run current customer promotions

I often find printers lower prices to get new customers in the door. Are you ever providing a discount to your current customers to keep them happy, or to get additional orders that you might not have gotten otherwise? It's worth the ask. You could mention a specific product that you're printing at a discount. You also could throw in samples of other items they aren't ordering in with their normal orders. Get creative and put new ideas in front of them!

5. Proactively ask for referrals

One of the easiest ways to maximize the relationship with your current customers is to have them help you find new ones. It's an easy ask as well. Here are two important points you should have on your mind when asking customers for referrals:

- → Timing: My recommendation is to ask often. Any positive interaction with customers has earned you the right to ask for a referral. I think the best time to ask is when they get an order in hand and are really excited about the end product.
- → What to ask for: Specificity is key here. Here's what you could say in such a case: "I'm assuming you network and are connected with a number of other Marketing Directors in the area. Would you mind connecting me with just one of them to see if I might be able to help them as well?"

Using these tips to keep your current clientele at the top of your priority list can help drive revenues with relationships you've already started.



WHY? Because, when you're up on stage, so many things can go wrong and you need to be prepared.

How? Microphone malfunctions and lets out an agonizing screech of feedback? Look at it and say, "I don't understand. I brushed my teeth this morning."

Tell a joke and no one laughs? Say "That joke was designed to get a silent laugh ... (pause) ... and it worked."

Get a question you can't (or don't) want to answer? Answer "Could you save that question until you're finished – and well on my way home?"

Source: Lilly Walters, What to Say When You're Dying on the Platform

32 MAY-JUNE 2024 MAY-JUNE 2024 33

COLUMNS BIG BUSINESS



UV PRINTING BY JAY ROBERTS

UNDERSTANDING UV PRINTER TRENDS AND INNOVATIONS

On-trend capability and hydbrid flexibility are just two enhancements to this type of wide-format printing.

he global market for UV printing continues to expand and, as it grows, printer manufacturers are responding with innovative and versatile solutions for PSPs. Advances in printer technology along with expanded and improved inksets, accessories, and updated RIP software have made the latest UV printers more accurate, productive, and flexible than ever before. In addition to allowing users to print on just about anything, these printers can



JAY ROBERTS

currently serves as product

manager, UV printers for Irvine Calif.-based Roland DGA Corp., a provide of large-format inkjet printers, and other innovative digita devices. An industry veteran Roberts has more than 25 years of color management and UV printing graduated in 1990 from San University with a degree

specializing in photography. now produce vibrant, high-quality output that rivals output from other production devices and is sure to please even your most demanding customers.

Let's take a closer look at the latest UV printing technology and how its components combine to address today's market trends and customer needs.

PRODUCTION VERSATILITY

With its ability to print on a wide variety of substrates and 3D objects, UV printing offers exceptional media and application versatility. Users can personalize and customize materials and objects in a range of sizes, allowing PSPs to upsell existing customers and appeal to new ones. UV printing capability also opens opportunities to enter new markets, including packaging, promotional products, point-of-purchase displays, art, and interior design.

In addition, UV printing provides users with a simple and straightforward

production cycle. Since UV inks can print directly to the end substrate, users avoid the need to print, then laminate, and then mount their graphics, saving time and streamlining workflows.

INKSET OPTIONS

Along with versatility and simplified production workflow, today's inksets offer a widened color gamut. Some include CMYK plus orange and red inks. These advanced inksets yield high-quality output that rivals the output from ecosolvent printers and allows easy crossplatform production.

Inksets are also being created to respond to different production needs. For example, Roland DG's EUV5 inks are GREENGUARD Gold certified and print well on both flexible and rigid substrates, while its V-BOND inks are excellent, durable all-around inks. The composition is designed for rigid substrates and direct-to-object printing on items like children's products and water bottles. Users can

transition from one inkset to the other as their production needs change over time.

Another innovation in UV inksets is the number of configuration options now available. Roland DG's VersaOBJECT CO and CO-i series, for example, offer users as many as seven different ink configurations to meet printers' specific needs.

ON-TREND CAPABILITY

↓ Adding

customization and personalization are ben markets for PSPs. Customization and personalization are trends that only are increasing as businesses seize the potential that these

services provide for additional profit and connection to their clients. UV printing helps PSPs meet these needs with quickdrying, durable, and scratch-resistant short-run prints.

Another advantage of UV printing is its white and gloss ink capabilities. Adding contrast with a base layer of white ink or effects with gloss ink enhances the look of the end product. In addition, users can add spot color and a matte or gloss finish to set their designs apart from the competition. UV prints also can be layered to create a texture that simulates popular



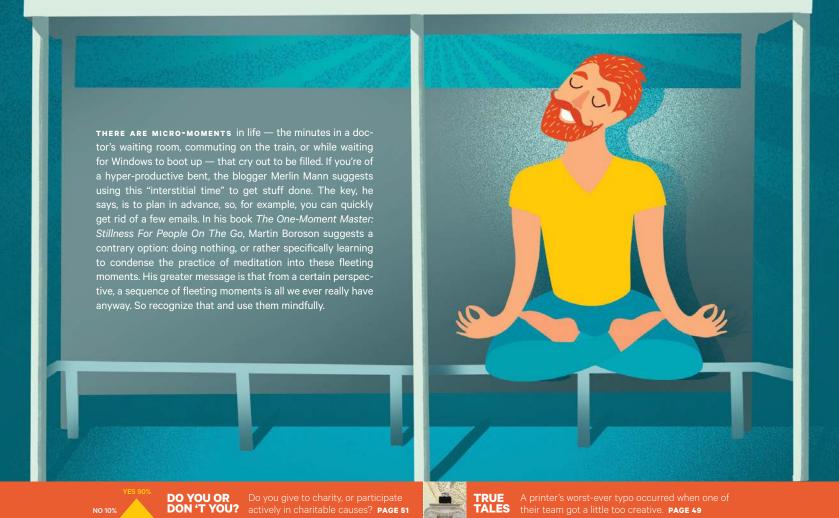
 $\ensuremath{\uparrow}$ UV printing capability allows PSPs to easily produce wall décor and other high-margin products.

34 MAY-JUNE 2024 bigpicturemag.com

SELL MORE / SPEND LESS / MANAGE WISELY

BIG BUSINESS

THE BUS STOP DILEMMA



embossing or three-dimensional effects.

HYBRID FLEXIBILITY

Hybrid UV printers offer the ability to print on rigid material such as board stock and metals, as well as printing roll-to-roll media for graphics and backlit displays. Hybrid UV printers also are being used for printing on heavier textile roll-to-roll media that are used to create products like umbrellas and awnings.

In addition to offering more versatility for customers, hybrid printers have a reduced footprint compared with traditional flatbed printers. During the past few years, printer manufacturers have begun offering a range of bed sizes to accommodate the needs of users, from deeper and larger beds to more compact options.

INCREASED DEPTH ALLOWANCES

Along with other production enhancements, the newest UV printers can accommodate objects of greater thickness, thus increasing the range of products that can be printed on. Many flatbed or hybrid UV printers can print on objects up to seven inches thick or more.

Printing on curved or uneven materials can be challenging due to the materials' varying distance from the printheads. However, newer printers like the VersaOJBECT CO-i series offer a Distance Mode that allows detailed prints on these types of materials without any



loss in quality.

RIP SOLUTIONS

The evolution of RIP software has kept pace with ink and printer technology advances. The newest RIP programs come with a wide range of features and modes that will help users produce more accurate output, more rapidly.

While color management used to be an important concern in digital printing, recent RIP software provides profiles and modes that manage color extremely well. Users can still create their own color profiles, but typically find that they no longer need to do so. Today's printer software can also measure the color in a paint chip or swatch and reproduce that color with

↑ Accessories like Roland DGA's Rotary Rack help maximize market

remarkable accuracy.

One feature that helps users create special effects is the ability to control UV lamp intensities on the CO-i. This control can be used for special effects that include a foil technique where a user lays down a spot of uncured gloss ink, then adds foil, rubs it in, and cures it, leaving the foil in the print. Although labor intensive, special techniques like these can add value and impact to art or décor projects.

ACCESSORIES THAT ADD FUNCTIONALITY

The increased capability provided by printer accessories offers users the opportunity to broaden their product range to include popular products like water bottles and tumblers.

Using a Rotary Rack, users can print on the entire circumference of cylindrical objects such as insulated water bottles, glass vases and candles, and other objects ranging from .5 inch to 7.75 inches in diameter. This additional printing capability with no quality loss is a winning combination for PSPs and their clients.

PROMISING FUTURE

In the next few years, we are looking forward to announcements about new UV printer platforms offering increased speed and production capabilities Manufacturers are listening and responding to the market's demand for additional speed and for continued advances in vibrant, accurate production.

bigpicturemag.com



INDUSTRY EXPERTS

KEVIN BAUMGART: Revenue builders, PAGE 40 RACHEL NUNZIATA: Relationship advice. PAGE 50 JAY ROBERTS: UV printer trends. PAGE 42









QUESTION Generally, how often do you upgrade/replace your presses and other larger,

ONE QUICK

more expensive

equipment?

Everv 1-2 years

5% 36%

Everv 3-4 years

Everv 5+ years

50%

When it breaks down

0%

bigpicturemag.com MAY-JUNE 2024 37 BIG BUSINESS COLUMNS

PRINT TECHNOLOGY BY DEBORAH SEXTON

7 THINGS TO KNOW ABOUT WIDE-FORMAT LATEX/RESIN PRINTERS

These are the critical factors to consider when selecting the ideal solution for your shop.

f you're looking for a wideformat printer that has the greatest number of applications and therefore, potential profitability, latex/resin may be the best choice.

If you want to expand your business with a greater number of services, latex/resin printers can be used for an expansive number of applications and a comprehensive list of substrates.

Wide-format printers are the workhorses of the outdoor signage and display graphics industries. Within the large-scale printing universe, two types are known for their quality, durability, vibrancy, photographic realism and sustainability: latex and resin.

While these two inks have different formulas, they are grouped together because of similarities in their purpose, characteristics, and range of compatible substrates.

If you are thinking about a latex/resin wide-format printer, here's some points to consider.

VERSATILITY

Every type of wide-format printer has its own strengths and weaknesses. When choosing one, your first question must be what do you want to use it for? You will find that latex/resin printers offer one widest range of applications and compat-



SEXTON is a

mer editor

Magazine where

until 1981 to 2011.

Since then, she

write for industry

publications

promotional

and trophy/

addition, she

(press release

articles, social

media, websites

newsletters) fo

a wide range of

these markets.

She can be

does copywriting

awards. In

sporting goods

products,

of Impressions

ible substrates of any category, making it ideal for any sign or wide-format shop that wants to expand its products and services.

Keeping in mind that applications and substrates vary from brand to brand, and no one machine does them all, a latex/resin printer can be used for all kinds of indoor and outdoor signage, banners, backlit displays, textiles, upholstery, canvas prints, window blinds, stickers and labels, fine art reproduction, wall coverings, vehicle graphics, and more.

The list of substrates is a comprehensive one (keeping in mind that not every brand does them all). These include: vinyl (PVC), banners (scrim, vinyl, blockout), canvas, fabric (polyester, cotton, canvas), paper (coated and uncoated), backlit films, mesh, textiles (for soft signage and fabric printing), photo papers, wallcoverings, wall decals, self-adhesive for stickers, decals and labels), clear

vinyl (for stickers, decals and labels), clear films (PET, PVC), reflective materials, synthetic papers, foam board, corrugated board, wood, metal (aluminum, steel), glass, acrylic (Plexiglass), ceramics (specialty applications), plastics (polycarbonate, polyethylene, etc.), cardboard, leather (for specialty applications), magnetic materials (for vehicle graphics, signage), floor graphics materials (for indoor and outdoor floor graphics), fine art papers

great for creating wraps for vans, trucks, and trailers. "Some of the newest resin inks are far less prone to cracking, which makes outstanding choice for wrapping vehicles with their many curves and

Daniel Va-

lade, digital

print product

Roland DGA

Latex/resin wide-format printers are great for creating wraps for vans, trucks, and trailers.

(for high-quality art reproductions), packaging (for prototypes, short-run packaging) and laminate films (for added protection and durability).

"I can go from printing decals for product packaging to textiles for decorating."

PHOTO COURTESY OF ROLAND DGA, IRVINE, CA

"I can go from printing decals for product packaging to textiles for decorating upholstery," says David Lopez, product manager, Professional Imaging, Epson America, Los Alamitos, Calif. "If someone wants to diversify their offerings but has limited space, this is the one printer that can take on most jobs. It's able to do almost any kind of printing that fits on a roll."

DURABILITY

Latex and resin printers deliver prints that can withstand the rigors of their environment including UV exposure, scratches, and abrasions. Resin ink does an especially good job of resisting weather and abrasion, which ensures prints maintain their professional quality and vibrancy over extended periods.

"The durability of latex/resin inks has improved to the point where resin prints are competitive for outdoor graphic applications, such as vehicle and fleet graphics. Some manufacturer's latex or resin ink formulations are best used for wraps on box trucks and trailers where less conformability is required," notes Daniel Valade, digital print product manager, Roland DGA, Irvine, Calif. "Some of the newest resin inks are far less prone to cracking, which makes them an outstand-

ing choice for wrapping vehicles with their many curves and edges."

THERMAL VS. MICRO PIEZO PRINTHEADS

Latex/resin printers are manufactured with two types of printheads — thermal or micro piezo. Both are inkjet. When choosing a printer, you want to know which type of head the printer has and research the pros and cons of each type to know which one will work best for you.

Thermal printheads use heat to vaporize the ink. This creates bubbles that are propelled onto the substrate. The heating process can lead to some variability in droplet size and placement. It also can affect the dot precision when compared to micro piezo.

Thermal is known for its high-speed printing capabilities, and it is considered low maintenance because it has fewer moving parts than micro piezo, which reduces the need for maintenance and repairs.

However, the use of heat also shortens its life. Thermal printheads are less expensive than micro piezo, but depending on the volume of usage, they may have to be changed out anywhere from six months to more frequently. While a technician used to have to replace a printhead, manufacturers changed the design so that operators can do it themselves, saving the time and money of having a technician come out.

Micro piezo printheads are a heat-free technology. They use a quartz crystal that pulses when an electric signal is sent by the printer. This makes the ink vibrate, which creates waves. These waves push the ink out of the nozzle to create dots, and the size can be controlled through the use of variable dot size technology.

Micro piezo printheads are more expensive but are intended to last the life of the printer. But things happen, like a printhead getting damaged by hitting something and, recently, micro piezo heads also can now be replaced without a technician. "After years of devel-

"After years of development, we came out with a printhead that is end-user replaceable,"

"Eplaceable."

David Lopez

After years of

development,

we came out

with a printhead

that is end-user

says Lopez. "In under an hour you can change it out yourself and get back to printing."

RESOLUTION

One of the most important features of a latex/resin printer is its resolution capabilities. "Every printer has several modes that offer different print resolutions and ink densities depending on the application and substrate," says Thomas Giglio, HP Latex Business Segment Lead, Palo Alto, Calif.

According to Timothy Dinneen, regional sales manager, Industrial Printers Group, Brother International Corp., Bridgewater, N.J., "Knowing what

resolution to use starts with the intended application of the end print. Many print professionals refer to the 2-foot or 10-foot rule. Generally, applications like labels or vehicle wraps will be printed at higher resolutions as they'll be viewed at or around 2 feet away.

"Billboards or building signage typically is viewed from distances further than 10 feet. The closer

the viewing distance, the higher the print resolution should be and correspondingly the further the viewing distance, the lower the print resolution.

"Most printers provide multiple print resolution options in a similar range; however, that is not to say the output is always similar. The color gamut of the ink and how the printhead fires it plays a



HP offers a full line of wide-format latex printers using thermal printheads that range from 54 inches wide to 126 inches wide in flexible and rigid models. PHOTO COURTESY OF HP. PALO ALTO, CA

38 MAY-JUNE 2024 MAY-JUNE 2024 39

COLUMNS BIG BUSINESS

significant role in the perceived quality of a print," he observes.

"When it comes to thermal and micro piezo technology, the ability to change dot sizes and get photographic quality is a huge advantage," says Lopez.

The only way to really judge a printer's resolution and quality is to get printed samples. "Ask to see prints on your materials," recommends Lopez. "Visit your closest distributor and request a demo. You may want to see a comparison of printing from a thermal vs. a micro piezo printhead."

"We also do virtual demos from our locations and have stock samples we can send out. We always recommend people see prints of *their* images on their materials to make sure they get the results they are looking for," he concludes.

WHICH INK: LATEX OR RESIN

When choosing a printer, you need to decide whether you want latex or resin ink. Daniel Valade, expalins the differences

"Resin ink and latex ink are two names



This Epson SureColor R5070 is 64 inches, which is the most popular wide-format size. It comes with 1.5L resin ink packs and another model, the SureColor R5070L, comes with two 1.5L ink packs for uninterrupted printing. Output is ready for immediate lamination. PHOTO COURTESY OF EPSON, LOS ALAMITOS, CA

for similar, water-based, multipurpose ink technologies. There isn't any actual latex or resin in the inks. Although the various latex and resin ink technologies are similar, the specific ink formulations

This graphic is a perfect example of the capabilities of a resin wide-format printer. The TrueVIS AP-640 is quick drying, environmentally friendly and can be used for wall décor, indoor signs, retail displays, stickers and decals, banners and posters, vehicle wraps, and more. PHOTO COURTESY OF ROLAND DGA



vary substantially from manufacturer to manufacturer, so you'll want to research your options carefully."

For latex and resin inks, optimizer plays an important role.

Resin ink printing works by preheating the material, after which the printer deposits a droplet of optimizer on the substrate," says Valade. "The ink then lands inside the dot of optimizer, yielding just the right amount of dot gain. Using a high-quality optimizer is critical for controlling the level of dot gain, and therefore output quality."

"Think of optimizer as a pretreatment," adds Lopez. "This is the reason why the printer can be used for uncoated media."

Latex and resin wide-format printers rely on built-in curing systems that use heat and airflow to achieve optimal print quality. They are quick drying and don't require outgassing time, which means they are immediately ready for lamination, installation, or shipping to the customer.

"Thermal printers use latex ink that has been heated, which generally requires higher drying temperatures, making it less ideal for some heat-sensitive materials," notes Dinneen. "Latex printing with Brother machines replaces the evaporative process and the heater used in older printer models, resulting in little to no outgassing."



ENVIRONMENTALLY FRIENDLY

In a world that continues to be more aware of and sensitive to sustainability, latex/resin printers are one of the most environmentally friendly wide-format choices.

"HP Latex Gen4 ink chemistry is roughly 65% water, has no hazardous air pollutants or warning labels and carries the *UL Ecologo, UL Greenguard Gold* certifications among many others," explains Giglio.

"Latex printers use water-based inks," concurs Dinneen. "These contain fewer volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) than traditional solvent-based ink."

"Due to their eco-friendly composition, resin ink prints are in demand for indoor signage and décor, particularly at schools and medical facilities," adds Valade.

UNCOATED SUBSTRATES

While solvent and other types of wideformat printers require the substrates to be coated, increasing their cost, for the most part, latex/resin printers can be used with uncoated flexible and rigid products.

"With resin ink you need less coated substrates, which means less expensive, and you also can print on thinner materials," shares Lopez. "Today I printed on gift wrap paper, which is a super thin, white, uncoated material, and I was able to print right onto it."

However, there are exceptions. The need for a coating or pretreatment will vary based on the specific substrate, ink formulation, and printer settings. Always consult with manufacturer's guidelines and conduct testing to determine if a coating is necessary.

There are many factors to consider when choosing a latex/resin wide-format printer.

"The primary difference between latex printers — aside from usability features

One of the newest entrants to the latex wideformat market is Brother Intl. with its WF1-L640 64-inch printer. According to the company, its latex ink formula has a wider color gamut with CMYK than the industry standard, and its integrated curing system eliminates the additional wait time for drying sometimes needed with other chemistries. PHOTO COURTESY OF BROTHER INTL, BRIDGEWATER, NJ

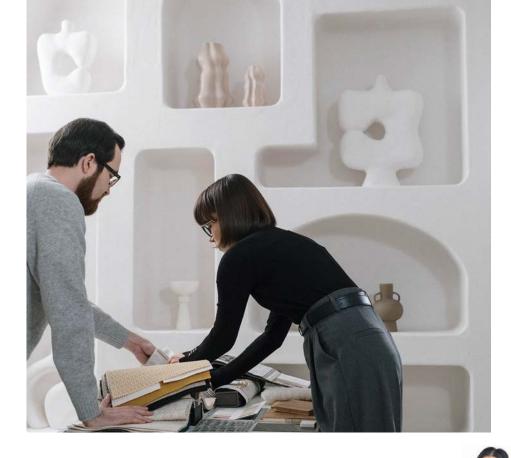
and differences — may come down to the print speed and overall productivity," says Valade. "Users printing higher volumes and/or larger graphics will require larger, faster devices to produce those types of applications."

"Don't base your purchasing decision solely on price. While it may be tempting to opt for a lower-priced inkjet, spending a little more for one that will consistently provide high-quality performance with minimal downtime is worth the additional investment. You might save a little money in the short term by purchasing a lower-quality printer, but choosing an ultra-reliable device that you can count on to produce rich, vivid, customer-pleasing prints over the long haul definitely is the way to go," Valade recommends.

Giglio offers this parting advice. "End users need to look deeper into the value proposition of a particular printer — beyond speeds and feeds. Typically, users need to look at image quality, cost of operation, ease of use, dependability, and reliability."



40 MAY-JUNE 2024 bigpicturemag.com



BEYOND DÉCOR BY RACHEL NUNZIATA

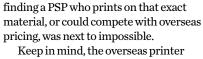
WHY THINKING **LONG-TERM YIELDS HIGHER VALUE RESULTS**

When building a relationship with a new business partner, follow these three tips.

didn't realize just how much has changed in the years since the global pandemic stalled the world. But when reconnecting with someone from a 2017 work project, I found things really had changed. My contact had moved, some of our mutual connections left for new careers, and a few - myself included - had babies during COVID. Minutes into our call, it became clear to me the world is very much open, IRL events are back full swing, and people are eager to reconnect or pick up where they left off.

During that 20-minute call, we discussed a substrate the company specified after guidance from myself and colleagues for a wall product prototype. At the time, my role as the company's in-house and self-taught SME (subject matter expert), was to spearhead interior décor market development activities. For this project I was tasked with connecting the designer to a full-service PSP within our customer base who could handle printing, cutting, kitting, and drop-shipping.

In a full-circle moment, I learned the project was back on track after making headway with buyers at a major big box retailer. Since then, lots of new opportunities have popped up as consumers continue to personalize their homes with unique decor products. But for a product



designer and creative new to our industry,

offered a subpar alternative that removed paint after six months, a frustrating quandary for this designer, to say the least. They were still actively searching for a fulfillment partner to print on their specified substrate and pricing that still falls within fair wholesale and retail costs, with

Three lessons can be learned from this relationship – keyword, relationship - I'd like to break down that could help you build your reputation with designers, and ultimately convert to more business growth within the interiors market.

DO YOUR HOMEWORK

RACHEL NUNZIATA is a

business devel-

primarily focusing

on the interiors

leading global

and trend fore-

casting authority She is a graduate

College of Art &

sota, Florida, with a background in

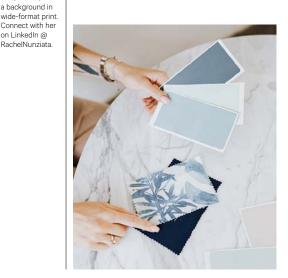
Connect with her on LinkedIn @

RachelNunziata.

Design in Sara-

Have you ever been in a discovery conversation with a potential business partner and you can sense by his line of questioning he did zilch to prepare and instead went immediately into his pitch?

Anyone in sales knows that doing some light research before you engage to ask a few tailored questions goes a long way. In this example, I did research early on about their brand and expressed interest and enthusiasm. Designers, like PSPs, mostly work project-to-project, so take it a step further once you're in the discovery stage and ask detailed questions about the design process. This is a great time to explore how you might work together and educate them on the printing process, including what to expect. Anything from



file preparation, color matching, to different inks and applications. On a field visit to an A&D firm, I

learned that offering smaller swatches for each job jacket not only made the contractor's life a lot easier, but it also increased our chances of doing more business because we provided assets to their procurement teams.

UNDERSTAND THE DESIGNERS' PRIORITIES

As mentioned above, one of the challenges this particular designer faced is probably common. There's a sea of information out there and navigating which service provider to partner with and then learning all the unbranded terminology of different materials is pretty daunting. Whether the substrate was vinyl or coated fabric, all he knew is the vinyl looked, well, cheap, and the latex printed material initially specified looked premium. Building out a print program for designers should ideally include an in-house SME and a range of substrates geared towards designer's taste; the "good, better, best" pricing approach works here for an additional layer of offerings and flexibility.

BUILD A LONG-TERM RELATIONSHIP

For project-to-project based businesses, we know that every step counts: from introductions, to the discovery, to proposal, negotiations, and through execution. However, there's an opportunity to work with designers seeking to create their own lines. If your business has the capacity to tap into wholesale work that incorporates everything a brand needs from start to finish, you should think about how to strategically build long-term relationships with your clientele. It'll take getting to know the ins and outs of their world, what's driving them, how you as a business can be in better alignment and be able to churn out high quality goods that meet a product-market-fit, and pricing requirements. You never know when a one-time project could turn into a partnership.

Have you thought about tactical strategies that you and your sales team can implement in order to grow high-value clients in the decor space? If not, take the three pieces of advice I just shared and test them for yourself.



90.5% YES

- We are very heavily involved in a large variety of charitable causes. Some are seasonal around specific holidays or annual events and some are very much ongoing and part of our commitment to our community. Wade Neff, Strategic Factory, Owings Mills, MD
- ▶ We donate to some local charities each holiday season. We have also helped with community clean-up near our plants. Kristi Duvall, The BoxMaker, Kent, WA
- ▶ We donate 10% of our profits to charitable organizations for causes we believe in. We believe it is important to speak out about issues we believe in and not just give lip service, but put our dollars behind it. Tracy Hiner, Black Crow Studios,
- ▶ We always look for

Long Beach, CA

opportunities to help in our community. The most recent one was dressing up

our company's mobile-sign van inside and out to participate in the non-profit Trunk or Treat event for Wonderfeet Kids Muse-

kids and we handed out lots and lots of candy and custom stickers we made. Tami Napolitano, Awesome Graphics, Rutland, VT

um. There were tons of

Most local charities we get a flier and we

> nearly always participate. Malcolm Geiske, IDWraps.com/ Identity Group, Slatington, PA

▶ In support of minor sports, if the client provides the print-ready file, we will print the team banner at no cost. The key here is that they have to provide the final file - as you know, chasing down sponsors for quality logos is a pain and the real costs are in the setup. Tim Bezner, Westmount Signs and Printing Co., Waterloo, Ontario

- We have to pick and choose charities, but always find ways to help. If not a straight cash donation, it may be free or heavily discounted signs, graphics, or banners. Jim White, Go Graphix, East Longmeadow, MA
- ▶ We love to support our employees and their charitable endeavors through in-kind donations, tickets, financial support. Always fun to have an employee's back and help them do

good. **Brian** Adam, Olympus Group, Milwaukee, WI

▶ Special fund raisers annually

and/or personal events, runs, boat event, etc. Then we regularly participate with child leukemia for MUSC and cancer awareness. Kim Magraw. Vivid Sign, Mt Pleasant,

9.5% NO

Personally, yes. As a company, no ... but we encourage our employees to contribute to the well being of their favorite charities. Jim Dittmer, JDA Creative Color, Gresham, OR



YOU'RE INVITED! Own or manage Join the Brain Squad to participate n useful surveys on issues important to wide-format printing professionals

bigpicturemag.com 42 MAY-JUNE 2024 MAY-JUNE 2024 43 embossing or three-dimensional effects.

HYBRID FLEXIBILITY

Hybrid UV printers offer the ability to print on rigid material such as board stock and metals, as well as printing roll-to-roll media for graphics and backlit displays. Hybrid UV printers also are being used for printing on heavier textile roll-to-roll media that are used to create products like umbrellas and awnings.

In addition to offering more versatility for customers, hybrid printers have a reduced footprint compared with traditional flatbed printers. During the past few years, printer manufacturers have begun offering a range of bed sizes to accommodate the needs of users, from deeper and larger beds to more compact options.

INCREASED DEPTH ALLOWANCES

Along with other production enhancements, the newest UV printers can accommodate objects of greater thickness, thus increasing the range of products that can be printed on. Many flatbed or hybrid UV printers can print on objects up to seven inches thick or more.

Printing on curved or uneven materials can be challenging due to the materials' varying distance from the printheads. However, newer printers like the VersaOJBECT CO-i series offer a Distance Mode that allows detailed prints on these types of materials without any

figurations and offer direct-to-object or

substrate printing.



loss in quality.

RIP SOLUTIONS

The evolution of RIP software has kept pace with ink and printer technology advances. The newest RIP programs come with a wide range of features and modes that will help users produce more accurate output, more rapidly.

While color management used to be an important concern in digital printing, recent RIP software provides profiles and modes that manage color extremely well. Users can still create their own color profiles, but typically find that they no longer need to do so. Today's printer software can also measure the color in a paint chip or swatch and reproduce that color with

sories like Roland DGA's Rotary Rack help maximize market

ties for UV printer users.

† Accessories like One feature that he

One feature that helps users create special effects is the ability to control UV lamp intensities on the CO-i. This control can be used for special effects that include a foil technique where a user lays down a spot of uncured gloss ink, then adds foil, rubs it in, and cures it, leaving the foil in the print. Although labor intensive, special techniques like these can add value and impact to art or décor projects.

ACCESSORIES THAT ADD FUNCTIONALITY

The increased capability provided by printer accessories offers users the opportunity to broaden their product range to include popular products like water bottles and tumblers.

Using a Rotary Rack, users can print on the entire circumference of cylindrical objects such as insulated water bottles, glass vases and candles, and other objects ranging from .5 inch to 7.75 inches in diameter. This additional printing capability with no quality loss is a winning combination for PSPs and their clients.

PROMISING FUTURE

In the next few years, we are looking forward to announcements about new UV printer platforms offering increased speed and production capabilities Manufacturers are listening and responding to the market's demand for additional speed and for continued advances in vibrant, accurate production.



ing choice for wrapping vehicles with their many curves and edges."

THERMAL VS. MICRO PIEZO PRINTHEADS

Latex/resin printers are manufactured with two types of printheads — thermal or micro piezo. Both are inkjet. When choosing a printer, you want to know which type of head the printer has and research the pros and cons of each type to know which one will work best for you.

Thermal printheads use heat to vaporize the ink. This creates bubbles that are propelled onto the substrate. The heating process can lead to some variability in droplet size and placement. It also can affect the dot precision when compared to micro piezo.

Thermal is known for its high-speed printing capabilities, and it is considered low maintenance because it has fewer moving parts than micro piezo, which reduces the need for maintenance and repairs.

However, the use of heat also shortens its life. Thermal printheads are less expensive than micro piezo, but depending on the volume of usage, they may have to be changed out anywhere from six months to more frequently. While a technician used to have to replace a printhead, manufacturers changed the design so that operators can do it themselves, saving the time and money of having a technician come out.

Micro piezo printheads are a heat-free technology. They use a quartz crystal that pulses when an electric signal is sent by the printer. This makes the ink vibrate, which creates waves. These waves push the ink out of the nozzle to create dots, and the size can be controlled through the use of variable dot size technology.

Micro piezo printheads are more expensive but are intended to last the life of the printer. But things happen, like a printhead getting damaged by hitting something and, recently, micro piezo heads also can now be replaced without a technician. "After years of devel-

opment, we came out

with a printhead that is

David Lopez

After years of

development,

we came out

with a printhead

that is end-user

replaceable."

end-user replaceable," says Lopez. "In under an hour you can change it out yourself and get back to printing."

RESOLUTION

One of the most important features of a latex/resin printer is its resolution capabilities. "Every printer has several

modes that offer different print resolutions and ink densities depending on the application and substrate," says Thomas Giglio, HP Latex Business Segment Lead, Palo Alto, Calif.

According to Timothy Dinneen, regional sales manager, Industrial Printers Group, Brother International Corp., Bridgewater, N.J., "Knowing what

resolution to use starts with the intended application of the end print. Many print professionals refer to the 2-foot or 10-foot rule. Generally, applications like labels or vehicle wraps will be printed at higher resolutions as they'll be viewed at or around 2 feet away.

"Billboards or building signage typically is viewed from distances further than 10 feet. The closer

MAY-JUNE 2024 45

the viewing distance, the higher the print resolution should be and correspondingly the further the viewing distance, the lower the print resolution.

"Most printers provide multiple print resolution options in a similar range; however, that is not to say the output is always similar. The color gamut of the ink and how the printhead fires it plays a



HP offers a full line of wide-format latex printers using thermal printheads that range from 54 inches wide to 126 inches wide in flexible and rigid models. PHOTO COURTESY OF HP. PALO ALTO, CA

Roland DG's VersaOBJECT CO series
UV flatbed and hybrid printers are
available in a range of sizes and con-

44 MAY-JUNE 2024 bigpicturemag.com



P5 350 HSR FASTEST ROLL-TO-ROLL PRINTING SYSTEM



FREE
HEAVY METAL
FREE

REACH COMPLIANT





BE PRODUCTIVE	BE PRECISE	SAVE TIME
High Speed Print at speeds of up to 7212 sqft /h	Multi & Master Roll Dual, Multi and Master Roll options for any business needs	Reliability Unattended printing for 24/7 production

PIXEL TO OUTPUT

888-480-3588 Durstus.com



