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The **Mimaki** Magazine

#4

## ELEV8TE

Making Money as a “Maker”

Turning Your Passion into Profit

Revolutionary 3D Printer



# MICROFACTORY

PRINT. FINISH. ASSEMBLE.



## Turn your passion into profits.

The Mimaki Microfactory can help you utilize existing digital technologies to get in on the ground floor of the rapidly growing on-demand manufacturing market. Through one of our nationally planned events, you can learn how to take advantage of expanding business opportunities to create the types of finished goods you see here; or learn about new possibilities in signage, awards, prototyping, and areas yet to be defined. Find out how you can move from concept to final designs, and then from production to packaged, sales-ready customized product within hours instead of weeks or months.

Sign up today to get inspired by the Mimaki Microfactory.

[mimakiusa.com/microfactory](http://mimakiusa.com/microfactory)



# New Ideas for a New Manufacturing Horizon

**W**hile Tesla rolls out plans for expanded Gigafactories, a different type of redefined industrialization has been in the works. Welcome to the age of the Microfactory. Technology that – until recently – was only accessible to large corporations and research facilities is now available at the desktop and prosumer level, making it possible for children and hobbyists to use 3D printers to not only design, modify, and build custom goods – from drones to fidget spinners – but to do so with minimal investment. Budding entrepreneurs are finding the means to incubate an idea, finalize designs, and even begin to manufacture on a local level.

The on-demand economy is the catalyst behind the evolution of this new manufacturing paradigm. This consumer level shift began with transportation and tourism through gig economy ventures such as Uber, Lyft, and Airbnb, and then it bypassed traditional financial outlets to raise working capital through crowdfunding; now, it has migrated to manufacturing, as evidenced by the entrepreneurial growth seen in online marketplaces like Etsy.

Why the shift? Buyers are redefining value, focusing on quality, and choosing personalized goods that deliver an experience, connect, and resonate their individual expression. By utilizing existing technologies to bridge the gap between the manufacturer and consumer, entrepreneurs and established brands are delivering just-in-time production, developing true customer intimacy through personalization, and reducing cost while shortening time-to-market. This puts these innovative businesses in a position to capitalize on this new consumer dynamic.

The Microfactory epitomizes collaborative manufacturing and process automation, creating a flexible, functional platform that enables a wide range of ready-to-market goods to be produced. Fundamental success of a Microfactory stems from the ability to bring together complementary technologies in order to produce a consumer-ready product.

So what's next and how will you benefit? Over the next several months, we'll be presenting the Mimaki Microfactory at open houses and trade shows, with demonstrations and tutorials outlining how to use technology to produce goods that directly connect consumers with manufacturers. Each event will feature workflows that not only prove how existing technologies can be utilized to accommodate local microfactories, but also give you the templates and training to do it yourself. Whether you want to make skateboards, apparel, soft goods, custom decorated items, or something completely different, learn how to move from concept to final design, then production to sales, within hours instead of weeks or months.

I'm excited to see how Mimaki technology continues to support new opportunities for our customers. I can't wait to see the results of your Microfactory!



Ken VanHorn  
Vice President, Marketing & Operations  
Mimaki USA

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*On the cover: A skateboarder suspended in midair while performing a trick: not a sight normally seen at the ISA Sign Expo. Mimaki took a radically new approach at that show last April, demonstrating the potential in the maker space. Learn more on page 8. Photo by Darek Johnson.*

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# Adding a NEW DIMENSION to 3D

MIMAKI'S NEW 3D PRINTER OFFERS UNIQUE CAPABILITIES

“**T**he 3D market is constantly evolving,” says Josh Hope, senior manager of business development, Mimaki USA. “Every day, there are articles about the latest 3D printer startup, merger, or emerging technology.”

But not all emerging technologies are created equal. The 3D systems on the market today share one significant hindrance: limited color capabilities. Most platforms rely on binder jetting technology, which uses a blending agent to selectively deposit powder particles; this process offers only a small number of color combinations. Often, countless man hours must be spent hand-painting colorless prototypes and models after they’ve been printed. Relying on a highly sophisticated machine that doesn’t produce color is like going to an IMAX theater to watch black and white television. It’s just not good enough.

After years of research and development, Mimaki has unveiled a revolutionary new 3D printing technology that leverages the company’s roots in digital color printing to create a system unlike others on the market today. The company’s new 3D printer – provisionally named 3DUJ-P – brings color 3D printing to an entirely new level. The printer made its public technology preview at JapanShop in March, followed by its first U.S. showing at the 2017 Sign Expo in April and was on display in Hamburg, Germany at FESPA 2017 in May; in all locations, it received an enthusiastic reception due to its advanced differentiation over existing technologies.

The 3DUJ-P printer, for which Mimaki holds 50 patents, enables three-dimensional items to be printed with more than 10 million colors – more than 10 times the amount possible with other 3D printers currently available. These unrivaled color possibilities, combined

with the ability to print finely detailed surfaces, enables users to produce output that’s truly photorealistic. Variable dot control combined with the UV LED curing method employed by the machine (also unique in this class) enables truly high-definition imaging. The range of reproducible colors reaches 90 percent of the SWOP gamut, and the machine takes advantage of an ICC profile color managed workflow. Meanwhile, clear ink can be combined with other ink colors to create a translucent effect, or layered on top of full-color output for a sophisticated, glossy finish.

In another unique feature, the 3DUJ-P printer can jet the support material required to build more elaborate structures, eliminating the need for users to use physical supports during printing. The water-soluble support material does not require lye or other chemicals to remove after output; it can be rinsed

away with mere tap water, protecting the surface and leaving behind a clean, precisely detailed product with water-resistant colors. The output from the 3DUJ-P printer is also designed to be put to work. The UV-cured acrylic resin offers strength equivalent to that of ABS, enabling users to polish, coat, or even thread inserts into it in the process of finishing the product.

The 3DUJ-P printer can print items up to 20 x 20 x 12 inches; larger items can be easily produced in multiple pieces. Its UV LED lamps last up to 10,000 hours and require zero warm-up time. An onboard camera helps operators keep an eye on printing in real time while going about their other duties. Security features include a nozzle check unit and printhead ink recirculation.

Hope calls the 3DUJ-P printer the next level in full color 3D printing and “the first that was developed from the perspective of the color printing market.” The possibilities include architectural and topographical models, historical artifact reproduction, film props, toy prototyping and short run collectibles, specialty signage, and even wall murals that are realistic in image and texture. Buyers of such products are bound to be particular when it comes to quality and truthfulness to their original designs; Hope says Mimaki’s engineers “strived to create the highest quality digital output to get maximum color and



detail from the designer’s concept to the finished 3D product.”

Hope believes a major shift in the market for 3D printing is imminent: “The driving forces will be print cost, speed, quality, and automation. The advent of online 3D print brokers and hubs is something of a throwback to the service bureaus that opened when digital prepress first came onto the scene in the early ’90s. In a similar way, we expect that there will be a tipping point, both in cost and technology, that will move these production machines from the service bureaus onto the print production floor.”

So what opportunities might the 3DUJ-P printer bring to your business? What new applications or markets might it allow you to pursue? The possibilities seem as boundless as the number of colors the machine can produce. ■





## TX500P-3200DS Printer

**T**he market for sublimation graphics is growing, big time, while the number of shops producing soft signage is still relatively small. That creates an enormous opportunity for forward-thinking business owners to plant a flag and begin producing those rich, sophisticated, recyclable, reusable, lightweight textile graphics that print buyers adore.

Why haven't more shops embraced printing on textiles? One obstacle has been the multiple-step nature of traditional dye sublimation: Prints must first be output to paper, then transferred and fixated to the fabric, a process that not only involves a second process but also another substantial piece of equipment. The production side of dye sublimation can be confusing, and let's be frank: Not every shop has the time, space, or money to dive in.

Mimaki's new TX500P-3200DS direct-to-textile printer simplifies the production of soft signage and other wide-format textiles by eliminating the need to print to a transfer paper or use a second machine to finish the job. It prints directly to the substrate and features an inline color fixation unit to streamline the production process and eliminate the cost of the transfer media and separate heat press.

The 129.5-inch machine's printing unit synchronizes with the postpress heater, reducing time and material wastage by initiating printing only when the heater has reached its optimum fixation temperature.

The TX500P-3200DS printer further protects against unnecessary costs with its 12 high-gap printheads, engineered to print on a wide variety of textiles while simultaneously guarding against head strikes and maintaining accurate ink drop placement. Through the use of just one six-color machine, PSPs can churn out interior décor, soft signage, backlit signage, exhibit graphics, banners, flags, retail displays, and more. Thin materials, thick fabrics, raised fibers, and woven patterns can all be printed with the vibrant color and excellent resolution for which sublimation printing is known.

The staggered 3x4 printhead rows are designed for high productivity, with a number of print modes available. In four-color, high quality mode, the printer reaches up to 538 square feet per hour; in four-color, high speed mode, production times climb to 1399 square feet per hour.


As with any inkjet application involving textiles, media handling is a critical consideration. Fabric is particularly

prone to wrinkling, which can throw off an entire image or risk damaging the printhead. The TX500P-3200DS printer's media handling system features an automatic media feeder and pulling roller to ensure the fabric's movement through the machine is stable and consistent, even at high speeds.

Meanwhile, a nozzle check unit and recovery system enables continuous (even unattended) printing by automatically checking, cleaning, and mapping clogged nozzles. A 3-liter external bulk ink system lets operators replenish ink while the printer is still running – meaning continuous production on an entire roll of fabric. The system includes a degassing module so that shops can continue to use economical, un-degassed Mimaki original Sb320 inks.

Precision is a key element in textile imaging, as well. Who wants a sophisticated material emblazoned with fuzzy graphics? Mimaki's Waveform Control technology works to achieve the perfect placement of each ink droplet according to that color's specific gravity and viscosity. Small, medium, and large variable ink droplets work together for both smooth gradients and quick production. Mimaki Advanced Pass System 4 applies an advanced algorithm to reduce banding, uneven ink drying, and bidirectional stripes.

RasterLink6 RIP software is included with the printer. The workflow platform is engineered for easy use and precise handling of image quality, color, and output. Users can also add Mimaki's TxLink3 textile RIP software for textile-specific solutions.

At the end of the day, designers, architects, and retailers won't appreciate that their graphics were printed and transferred in one smooth step. But they'll notice that you don't hesitate to accept a rush order, and they'll value the vibrant colors that brought their visions to life. They'll call it the icing on the cake; you'll call it another day at the office. 



## Complete super wide direct-textile print production

The **Mimaki Tx500P-3200DS** printer is a 3.3 meter wide, complete digital fabric printing system. It significantly reduces production time by simultaneously performing two operations – direct-to-textile printing and color fixation – reducing two steps to one. The Tx500P-3200DS printer is ideal for creating soft signage, flags, exhibit displays and custom fabrics for home décor and furnishings.

[mimakiusa.com/TX500P-3200DS](http://mimakiusa.com/TX500P-3200DS)

**Mimaki**

# Making a Market

BY DALE DOUGHERTY



**EDITOR'S NOTE:** Makers are continuously redefining words like “entrepreneurship” and “manufacturing,” and personalized, one-off production is part and parcel of this modern movement. This is where Mimaki’s industry leading printing and cutting technologies come in, and why Mimaki exhibited at and was a Silversmith Sponsor of Maker Faire Bay Area in May 2017.

“**F**rom the time I was very young, I identified as an outsider and, though I didn’t have a word for it, a maker.” This note, sent to me by a man I met at the Maker Faire in Portland, Oregon, echoes an itch felt by many in our not-so-little community of doers. The man, Ed Ivory, was third in a line of entrepreneurs and the son of a machinist. He grew up in a single-wide trailer, and across the driveway, his dad ran a machine shop. He was born to make stuff.

After a stint in the military, Ivory came across *Make* magazine, and it inspired

him to join a makerspace and begin doing projects. He and a friend came up with an idea for a product that they created on the laser cutter at the makerspace. Before long, they borrowed money from family to buy their own laser cutter and start a business. They went to Maker Faire Portland to sell their product. They met a corporate executive who showed interest in working with them, and it helped take their business to a new level.

I’m lucky to meet lots of makers and learn about their journeys. Makers are tinkerers, hobbyists, and enthusiasts who like using tools and learning about electronics. In

some ways, they get started by fooling around. They don’t always know where they fit – in college or in a career. Yet, they figure things out for themselves.

It’s a good time to be a maker. Low-cost hardware components, makerspaces that provide shared access to digital fabrication tools, better design software, and crowdfunding has made it possible for more people to develop their own ideas into products.

As a kid, DJ Sures liked to turn his toys into robots. While he pursued a career as a software developer in network security, his fascination with robots continued to grow on the side. Sures wrote an article for *Make* on hacking old toys and turning them into robots. Around the same time, he started a robotics company that produces a robotics construction kit named EZ-Robot. He employs about 50 people in Calgary, Canada, and builds all his own components for the robot. “The servo-motors I was getting from China were unreliable,” he told me. “So I started building my own.”



I believe that we've always had makers in our society, long before I coined the term. However, now people can become makers more easily, including those who didn't grow up tinkering. Lisa Fetterman worked in restaurants and saw that they used a cooking technique called sous vide. It uses a heating device in a water bath to maintain a constant temperature to cook meat or fish. Lisa decided she wanted a sous-vide cooker for herself. She told me that she overheard people talking at a restaurant about makers and wondered if she could become a maker herself and build her own sous-vide cooker. The first version was a DIY kit, which allowed her to test consumer interest. Then she ran a Kickstarter campaign and raised several hundred thousand dollars to build a consumer product. Her journey took her to Shenzhen, China, where she

*The Maker Faire Bay Area is the largest event for this growing community, drawing 1200 makers and 125,000 attendees over three days. Mimaki was a first time exhibitor and Silversmith Sponsor, demonstrating goods created on its new 3D printer as well as on its cutters and flatbed UV LED printers. Photos courtesy of Maker Faire.*



joined an incubator and learned about manufacturing. Her product, Nomiku, is now made in her own factory in San Francisco. Last December, Fetterman pitched Nomiku on the TV show "Shark Tank," and more recently, Samsung invested in the business.

To a maker, these successes aren't just a way to make money or climb a ladder. "It's so much fun," says Fetterman. "And it's painful, but there's so much purpose." She adds: "If I was just doing this for something that I didn't believe in, then I probably would be the most miserable person in the world. Instead, I'm stressed out but incredibly fulfilled."

Today, Ed Ivory runs the MakerLab at Portland Community College. "It's been a huge dream come true to be in the lives of young people empowering new thoughts, innovation, and creativity," he says. He doesn't seem like an outsider to me. 



**DALE DOUGHERTY** is the founder and CEO at Maker Media, publisher of Make magazine and producer of Maker Faire. He also serves as chairman for the Maker Education Initiative and is the author of "Free to Make: How the Maker Movement Is Changing Our Schools, Our Jobs, and Our Minds."





# Bringing the

# MAKER M

**Y**ou'll find them at arts and craft shows around the country: young entrepreneurs with ideas, the passion to bring them to life, and the tenacity to turn their creative endeavors into budding businesses. Members of

a generation that increasingly values authenticity, these makers strive to produce goods that go beyond the expected and ordinary. In the process, they are helping to prove that the demand for custom manufactured items is growing, an enormous opportunity not only for those who

dream up these ideas, but also for those who can help execute them,

The trend holds great potential for producers of signs and specialty graphics – and not just as a source for work that your competitors might be missing. True, makers often seek out local printers to



# MARKET

## to Main Street

help them realize their vision; those who succeed will place larger orders and eventually require permanent signage for their businesses. But an increasing number of printers and sign manufacturers are realizing they can get in on the action themselves. "The barriers to entry into the manufacturing segment

are at historic lows," says Josh Hope, senior manager of business development for Mimaki USA. "Through collaboration and using complementary technologies, print service providers can take advantage of this low cost of entry to customize, personalize, or regionalize products to sell to both the B2B and consumer markets."

At the ISA Sign Expo in April, Mimaki USA helped signage and graphics professionals visualize the unlimited potential of the maker space, unveiling a dramatic new booth dubbed the Mimaki Microfactory. The booth's simple but powerful theme – Print/Assemble/Finish – demonstrated how easily signage and

## CUSTOM BICYCLE HELMETS

Featuring the dramatic artwork of renowned artist Ryuji Kazamatsuri (whose designs figured into many of the products made at the Microfactory during the show), the graphics for these protective helmets were printed onto pressure-sensitive vinyl using the Mimaki JV300-160 printer and then cut on the Mimaki CG-FXII vinyl cutter. The graphics were applied during the show by Matt Braswell, an independent wide format graphic installation specialist.



graphics companies can employ readily available technology to completely transform their businesses.

Visitors to Mimaki's booth were presented with a fictitious company called ELEV8TE Sporting Goods to illustrate how different printing and finishing technologies can be used to create a vast range of products. Hope explains why sporting goods provided such an appropriate theme for the Microfactory concept: "A sporting-goods store offers so many hard goods that are decorated, such as fishing poles, water skis, biking helmets, baseball bats, and so much more. And then there are the soft goods: workout gear, sleeping bags, team apparel, and so on. Existing print technologies can be used to create or decorate nearly everything that could be found in such a store."



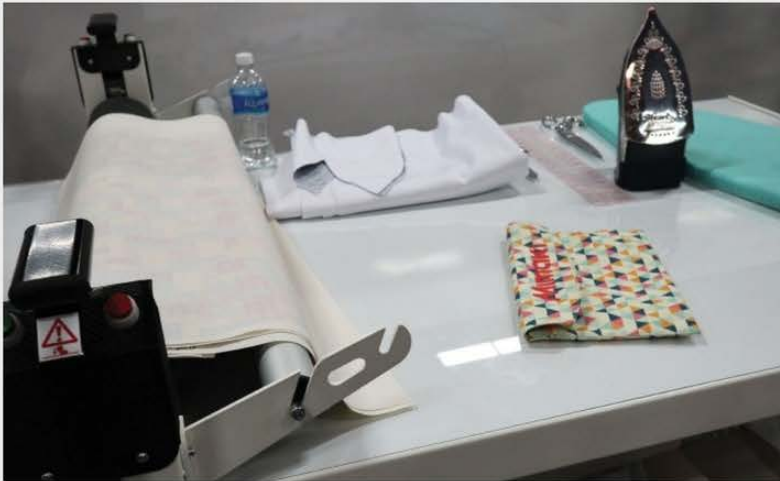
The Mimaki booth featured a pop-up retail store for ELEV8TE Sports, showcasing custom-printed apparel, skateboards, helmets, equipment and other goods that users can manufacture with the latest printing and cutting technologies.

Mimaki's innovative booth design began with a pop-up retail store for ELEV8TE that showcased a full range of sporting-goods items that today's digital printing technology enables – in addition to the signage, graphics, and store displays that would make such a store stand out. Mimaki then showed exactly how several of those products would be made, detailing the workflow and demonstrating the production steps using equipment and consumables from Mimaki and a number



## CUSTOM SLEEVE BAGS

Throughout the show, Mimaki was manufacturing protective tablet sleeves designed to showcase the versatility of direct-print and dye sublimation textile printing. The outer shell was direct printed onto cotton canvas using the TX300P-1800 printer, while the inner fabric was printed on the TS30-1300 dye sublimation printer and transferred to fleece using a Monti Antonio heat press. The two fabrics were cut on a CWT cutter and sewn together on a Juki sewing machine, with a Velcro closure completing the product. (Photos by Darek Johnson.)



of industry partners. The central idea was to help users think beyond putting ink onto substrate and imagine themselves taking on an even bigger role in the world of making and manufacturing.

The message resonated with attendees. Hope believes that signage and graphics manufacturers don't find the "Print/Finish/Assemble" message behind the Microfactory to be far removed from

*Flower power, or Día de los Muertos? Mimaki was printing these vivid textile transfers and demonstrating them in a black light viewing booth throughout the show to highlight the design versatility of its fluorescent dye-sub inks.*



## CUSTOM SKATEBOARDS

Showcasing the range of applications that can be produced on Mimaki equipment, these skateboards were decorated on virtually every available surface, including the deck, trucks, and wheels. The decks were directly printed on the JFX200-2531 wide-format UV LED printer, while the wheels were done on the UJF-7151 plus flatbed machine. The grip tape was cut on a Trotec laser cutter.



their existing businesses. “It can be argued that PSPs are manufacturers already, whether they are producing signage or decorating other surfaces to help their customers create unique objects. As visitors toured the booth, they were able to gain a new appreciation, not only for each technology that was represented, but also where it fit in the workflow.”

Nowhere was that understanding more eye-opening than in the textile area of the booth, an application that Hope notes “is still a bit of a mystery to many sign shops.” Right there on the show floor, Mimaki manufactured custom sleeve bags for tablet computers. The outer shell of each sleeve was printed directly onto cotton canvas material on the Mimaki TX300P-1800 printer. To create the inner fabric for each sleeve, the images



*What might a company like ELEV8TE Sports manufacture? Bicycle seats, skateboard trucks and wheels, tooling, helmets, promotional products, and 3D-printed prototypes barely scratch the surface of the possibilities.*

## ABOUT THE ARTIST



The striking graphics featured throughout the Microfactory were created by Ryuji Kazamatsuri, an artist who draws his inspiration from the lively street festivals (matsuri) in the old business district of Tokyo. To express the excitement of these lively scenes, Kazamatsuri has chosen the unusual art form known as kirie (or cut picture), and over the years has developed techniques that allow him to produce the most intricate paper cuttings with extraordinary attention to detail. In his work, Kazamatsuri captures the traditions of Japan, with matsuri, sumo, kabuki, and street scenes among his favorite themes. His cutting of the Hasedera Temple is part of the permanent collection of the Guimet Museum of Asian Art in Paris.



*Even Gore-Tex -- a popular water-repellent material that is notoriously difficult to decorate -- can be tackled with the right dye-sub technology.*

were printed onto transfer paper with the TS30-1300 dye sublimation printer. These dye sub prints were transferred to a fleece material using a Monti Antonio heat press. Then, both the cotton and fleece fabrics were cut using a CWT cutter mounted to a flatbed table and sewn together. Finally, a Velcro closure was added and the finished fabrics were ironed to complete the sleeve.

Hope notes that while this isn't the first time that Mimaki has demonstrated fabric printing at the ISA Sign Expo, the interest in textiles among these users is stronger now than ever before. It's just one example of how the more progressive companies in the sign industry are thinking outside the box – or outside the display, the wall graphic, or the other applications to which they are accustomed. They're exploring new opportunities as custom manufacturers of short-run premium products.

If you missed the ISA Sign Expo this year, don't worry. Mimaki will be bringing the Microfactory to other events this year, including the SGIA Expo in New Orleans this October. Come and explore how the marker movement might help you reimagine your business. 




*The Mimaki team celebrating the opening of the ISA Sign Expo from its Microfactory booth.*

## MIMAKI DYE SUBLIMATION INKS ACHIEVE ECO PASSPORT CERTIFICATION



Mimaki recently announced that its original Sb54/310/410 and Sb320/420 sublimation inks have achieved the ECO PASSPORT certification from OEKO-TEX. ECO PASSPORT is a certification demonstrating that products from textile chemical suppliers can be used in sustainable textile production. It authenticates the safety of chemicals used during the production of textile dyes, chemicals, and finishing agents.

ECO PASSPORT was established in 1992 by OEKO-TEX, an international association based in Switzerland. The authentication process is very strict and only applies to products that meet more than 300 requirements. The safety certification, achieved through the Nissenken Quality Evaluation Centre in Japan, reinforces Mimaki's commitment to developing inkjet systems that reduce the environmental footprint compared to other textile printing technologies such as screen printing.


Mimaki sublimation inks Sb54/310/410 are available for use in the company's TS Series transfer sublimation printers. The Sb320/420 sublimation inks are available for use in TX Series direct-to-fabric printers. 

## MIMAKI 3D PRINTER IS EDITOR'S CHOICE

At the Maker Faire Bay Area 2017 exhibition, Mimaki received the Editor's Choice award for its 3D printer. The event, promoted as the Greatest Show (and Tell) on Earth, was held May 19-21 in San Mateo, California, and attracted 1200 makers and 125,000 attendees.

Mimaki, a first-time Maker Faire exhibitor and Silversmith Sponsor, offered live demonstrations of the new 3D printer throughout the show while showcasing a wide range of items created on the machine.



Mimaki also showed goods being produced on its CFL-605RT cutter and UJF-6042 MkII tabletop flatbed UV LED printer. 

## TEXTILE PRINTERS NOW OFFER DUAL INK CAPABILITY

The Mimaki TX300P Series of direct-to-textile printers can now accommodate two different inks sets in the same device, giving users the ability to print onto natural materials with textile pigment inks (Tp400) or on polyester materials with sublimation dye inks (Sb420). Since neither ink system requires a washing post-process, the printers configured with dual

ink capability are an ideal solution for designers, fabric workshops, education and research institutions, and entrepreneurs because they can print a much wider range of applications from just one printer, without the additional expense of a washing station. This capability is available for the TX300P-1800 (standard) and TX300P-1800B (belt drive) printer. 

## MOBILE APP PUTS INFO AT YOUR FINGERTIPS



Be sure to download the new Mimaki USA Mobile App for an easy way to find information about Mimaki printers, cutters, software, and inks, as well as application help and the ability collect color information directly from your camera.

The app's Search button guides users through all of the printing and cutting products available from Mimaki. By answering a few basic questions on device type, application, ink type, and media, users can view a suggested list of Mimaki products that fit their selected criteria. Users can get more detailed information on each product through the Printers, Plotters, and Software buttons.

The Ink button provides detailed information on all of Mimaki's inks, including characteristics, suitability for an application, parts number, and printer compatibility. With the Dropper button, users can collect CMYK color information directly from their mobile device's camera. The process colors are immediately calculated and displayed on screen.

The Mimaki USA Mobile App is a free download available from the App Store for iOS devices and from Google Play for Android devices. 





## UV solutions like no other.

From tabletop to oversized flatbeds and super-wide roll-to-roll models, Mimaki offers the widest range of UV-LED printing solutions to suit nearly any application need.

Whether you need to create customized promotional items, grand format graphics, thermoformed signage and more, find out how wide format UV printing systems from Mimaki can boost your bottom line.

[mimakiusa.com](http://mimakiusa.com)

**MIMAKI**



## UJF-3042 Mark II EX

In this internet age, print buyers are increasingly attracted to items that have been customized or personalized. While the days of large, mass produced orders are far from over, today's client is often looking for something special – and something special, made fast.

But how can commercial print service providers, promotional product manufacturers, makers, educators, and others keep up with those customers' ever-changing demands while delivering attractive goods in quantities as low as one? They need a printer with the versatility to print whatever a buyer wants – awards, smartphone covers, specialty items, magnets, and much more – whenever a buyer wants it. They need a printer that not only gets the job done, but that also enables higher margins, lower production costs, and, most importantly, a high quality finished product.

The new UJF-3042 Mark II (MkII) EX UV-LED tabletop printer joins the popular Mimaki UJF Series, offering expanded capabilities and additional ink capabilities to print shops seeking a versatile, highly dependable small format machine. Measuring only 53.3 inches wide, 50.8

inches deep, and 33.7 inches high, the printer is an ideal option for users looking to offer an extremely wide range of printing capabilities without sacrificing a large amount of space in their shop, design studio, or office. The printer's compactness does not compromise its print quality, employing four staggered printheads that can image substrates up to 11.8 inches wide by 16.5 inches long by 6 inches high at resolutions up to 1200 dpi. The UJF-3042 MkII EX printer is also up to 20 percent faster than the previous generation of UJF models.


Mimaki's UV LED technology uses less energy than other light sources while providing dramatically longer bulb life. The curing system also generates less heat than other light sources, enabling users to print onto media that could be damaged on other machines.

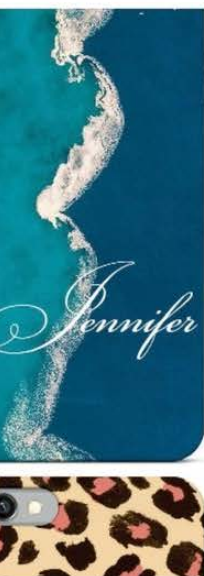
To further enhance the user's range of applications, Mimaki offers three ink systems: LH-100 ink, engineered for high scratch and chemical resistance; LUS-120 ink, which delivers scratch resistance and flexibility; and LUS-150 ink, designed to balance adhesion and flexibility. All three inks are available in 1-liter bottles

in CMYK, white, and jettable primer. LH-100 and LUS-120 inks are also offered in light cyan, light magenta, and clear, and available in 250-milliliter bottles. The printer's eight ink channels enable users to take full advantage of the available color range.

The UJF-3042 MkII EX printer is equipped with Mimaki Clear Control for smoother, cleaner clear effects, while Mimaki Circulation Technology continually circulates the white ink to prevent it from settling, reducing the need for manual maintenance. The machine's Nozzle Check Unit and Nozzle Recovery System work together to ensure continued productivity by automatically detecting and cleaning clogged nozzles, preventing them from compromising the image quality. A fully enclosed print area reduces airborne contaminants, further reducing the possibility of misprints while enabling the machine to be placed in more demanding production environments.

Additional features that help ensure precise image quality include threaded registration screws for repeatable media or jig placement; a vacuum table for holding more challenging materials in place; improved gap check laser sensor for more accurate media detection; Waveform Control that uses finely tuned frequencies for each ink's specific gravity and viscosity to precisely shape and place individual drops; and Mimaki's Advanced Pass System 4, which employs an advanced algorithm to minimize banding.

Users who own prior UJF models need not worry about having to rework existing jigs, thanks to a common registration hole used throughout the line. Mimaki's RasterLink6 RIP software gives users the ability to easily build templates and automatically populate data to produce entire runs of personalized items. The optional Kebab MkII device for printing cylindrical items provides even more possibilities: stainless steel tumblers, bottles, cans, vases, packaging, shipping tubes, and more. If you can dream it, the UJF-3042 MkII EX printer can help you create it. 



## Purpose built. Production minded.

The Mimami UJF MkII Series printers – including the UJF-3042 MkII, the UJF-6042 MkII and the new UJF-3042 MkII EX – join the world's best selling UJF line of small footprint UV-LED printers. Designed to bring ideas to reality, these production-focused professional tools can deliver an array of specialty, customized and personalized items, awards and more. Now compatible with the Mimami Kebab option for direct printing on cylindrical objects.

[mimakiusa.com/UJF-MkII](http://mimakiusa.com/UJF-MkII)



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