With output speeds in excess of 350 boards per hour, the 3.2m wide EFI VUTEk XT hybrid printer is designed from the ground up to drive a significant reduction in total cost of ownership for high-volume shops

ONE MACHINE TO RULE THEM ALL

Designed for super-high-speed throughput and featuring innovations in ink delivery and production intelligence, EFI's new hybrid flatbed/roll printer can do the job of multiple existing superwide-format hybrid printers, writes Sean Roberts

As the post-pandemic boom in the sign and display graphics business continues, you are likely living in a world of shorter runs, quicker turnarounds and increased versioning – all challenges that require print businesses to run more efficiently and productively. To protect margins and profitability, you need new capabilities to solve customers' challenges and new ways to boost capacity and reduce time to market. It also means implementing more automation solutions to free up valuable labour resources and decrease make-ready time.

EFI focuses on developing technologies that will increase profits, cut costs, improve productivity and optimise efficiency – exactly what the new super-high-speed EFI VUTEk XT hybrid flatbed/roll printer delivers. It is a new platform designed from the ground up to drive a significant reduction in total cost of ownership with super-high-speed throughput, innovations in ink delivery, Fiery digital front end solutions and production intelligence.

"The VUTEk XT's capabilities make it ideal for high-volume shops"

The VUTEk XT printer's capabilities make it ideal for high-volume shops as well as shops that are looking for burst capacity to make them more competitive, especially on jobs requiring short turnaround, versioning and personalisation.

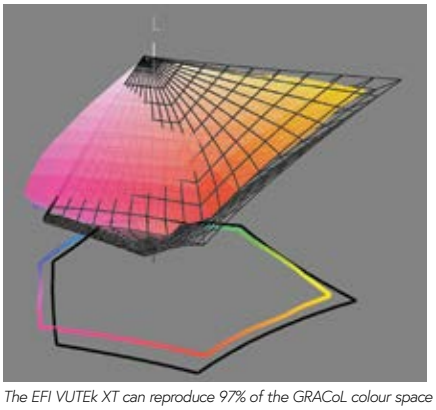
The new VUTEk XT is not just an enhancement on earlier EFI hybrid printers, it is built on an entirely new platform. With its throughput and print capabilities, substrate range, litho-like image quality and unparalleled ink yield, the EFI VUTEk XT printer can help sign and display-graphics providers build a healthier, more profitable business.

Digital graphics production Ingram Express Services has installed the world's first VUTEk XT

PRINT INNOVATION

EFI has a long history of pioneering print and continues to expand its technology portfolio through a new strategy of leveraged innovation. EFI is uniquely positioned in this

Continued over



The EFI VUTEk XT can reproduce 97% of the GRACoL colour space

INGRAM EXPRESS SERVICES – FIRST IN THE WORLD WITH THE NEW VUTEK XT

A highly advanced digital-graphics production specialist in Nashville, Tennessee, USA-based Ingram Express Services (IES) recently extended its VUTEk-heavy digital graphics production floor with the world's first VUTEk XT installation. The company operates several EFI VUTEk hybrid flatbed/roll-to-roll printers, as well as a pair of EFI VUTEk Q3rs.

IES is now looking to seize an opportunity to address growing demand for higher-volume rigid substrate work. Site preparations are currently underway for the company to become the very first user of EFI's newest super-high-speed hybrid printer, the 126ins-wide (320cms) EFI VUTEk XT inkjet printer in Q3 of this year.

Led by owner Adam Ingram, IES opted for the new VUTEk XT model based on its throughput capabilities, something that will give IES the ability to further extend its reputation and capabilities as a high-end, high-volume display graphics provider to leading brands.

"In wide format, to some people 100 sheets is a huge run," said Ingram. "We're looking to get into runs of thousands of sheets, and that's where we think the XT can take us. It's that next-generation press that will offer much more speed. We're going to dedicate the XT press to rigid and basically try to extend that range where we're competitive in terms of quantity."

way with its tightly integrated, yet independent, centres of excellence around the globe – each working on new inkjet products for different segments of the print industry (packaging, textile, building materials and sign and display graphics). The VUTEk XT platform brings best-of-breed componentry together for a revolutionary new architecture in shuttle-based, super-high-speed inkjet printers.

"EFI focuses on developing technologies that will increase profits, cut costs, improve productivity and optimise efficiency"

The new media transport vacuum system on the VUTEk XT, for example, was designed using EFI's proven vacuum design from Nozomi single-pass technology. It provides five times the hold down compared to other hybrid platforms, with vacuum pressure only under the actual substrate. These new technologies eliminate the need for material edge guides for printing corrugated and other non-flat substrates, providing smooth transport of materials up to 2ins (50mm) thick or 8kg per sheet.

The VUTEk XT printer uses automated alignment blocks and media scanning to help ensure front to back registration within 1mm for critical registration applications and sheet-to-sheet registration within 1.5mm for die-cut and guillotine finishing without restacking.

The multi-lane printing feature was adopted from EFI's single-pass technology. The new machine offers users the option to feed boards in up to three printing lanes, using the same or different print files, with speeds greater than 350 boards per hour. True to its hybrid lineage, the press supports roll-to-roll printing of large rolls up to 1.5m in diameter with two independent drives for two-up printing, or one collaborative drive for one-up printing. The printer is available with one or two dancer bars for smooth and precise material movement through the printer system.

The VUTEk XT printer uses an enhanced dual-zone Pin & Cure technology, originally launched on EFI's VUTEk HS series platform. In the print zone, as the printheads jet ink droplets onto the substrate, LED lamps partially cure the ink and control the dot gain

IES receiving an early-morning delivery of VUTEk XT components in August 2022

The VUTEk XT's robust, industrial ink delivery system is adapted from the company's successful Nozomi single-pass inkjet printer line

(the diameter and shape of the dot) at high production speeds – this is called 'pinning'. The instant on/off nature of the LED lamps allows users to precisely adjust the dot gain – effectively controlling the uniformity and colour density, resulting in a wider colour gamut for better PMS [Pantone matching system] colour matching capability and continuous tones with smoother transitions.

The final cure is completed after the print zone, offering users complete control of independently driven UV lamps to ensure the durability and integrity of the printed graphics.

AUTOMATION OPTIONS

To maximise the VUTEk XT printer's productivity, several automation options are available. The printer includes a ¾ infeed transition table that can be paired with an automated stacker on the output side for lean automation. The pallet-to-pallet options include an automated top feeding vacuum gripper, multi-lane independent registration and automated stacker for volume production. Media handling settings are stored in quick presets, enabling nimble changeovers for a dynamic production environment. Future options will include integrated robotics for material feeding and handling printed output directly to post-print processing. As volumes increase, owners can easily add more levels of automation to keep pace with growth.

"New technologies eliminate the need for material edge guides for printing corrugated and other non-flat substrates"

INNOVATIVE INK DELIVERY

The VUTEk XT printer's unique CP5G ink system delivers complete ink circulation in the primary and secondary ink tanks, as well as in the printheads, superior dot placement, five-picolitre drops and greyscale imaging – a robust combination of features that provides near-lithographic quality and smooth transition as well as fine text details without expanding beyond four-colour CMYK inksets.

The ink recirculation system is leveraged from EFI Nozomi single-pass architecture to ensure continuous flow of fresh ink, at the correct temperature, always at the ready. This reduces the risk of clogged heads and need for purges, instead ensuring consistency between first and last print.

This platform also opens a new world of greyscale print capabilities, overcoming any challenges with reliably and accurately jetting five-picolitre drops at super-high speeds in ways the rest of the industry has not been able to achieve. This small drop size is combined with EFI's proprietary Fiery screening technology to eliminate the need for light colours often required to mask the graininess of other devices in the class. Eliminating the need for light inks drives overall ink costs down and frees up valuable floor space without compromise to output quality.

"Future options will include integrated robotics"

The VUTEk XT printer's Genuine EFI Inks expand users' capabilities further in media compatibility. Born from a line of 'extended adhesion' chemistry, these inks provide exceptional compatibility with a broader range of substrates, including Coroplast, – a non-digital acrylic – and other materials with adhesion challenges, with no sacrifice to abrasion resistance or flexibility.

The small, five-picolitre drop size and greyscale printing play major roles in EFI's best ink yield ever. With the VUTEk XT printer, users can expect to obtain a yield of more than 168m^2 per litre of ink – an increase of [reportedly] 30–50% compared to other sign and display graphics inkjet printers.

AN INTEGRATED WORKFLOW

To succeed in today's highly competitive market, it is critical to have a digital front end (DFE) with integrated workflow and colour management to achieve higher operational efficiency and output quality. The VUTEk XT printer comes with a powerful EFI Fiery proServer Premium DFE, providing comprehensive built-in production tools and industry-leading colour-management tools for matching critical brand colours and the greatest number of Pantone colours. EFI's exclusive FAST RIP technology accelerates file processing times and embedded Fiery Sign Flow enables next generation, 'every print is different' VDP technology.

"We're looking to get into 1,000-sheet runs; that's where we think the XT can take us"

The VUTEk XT printer also comes with a one-year subscription to the EFI IQ suite of cloud applications to gain visibility, capture and transform production data into valuable analytics, so you can make data-driven decisions to improve your production results.

Many high-volume print producers will see the VUTEk XT printer as a compelling solution to replace multiple existing super-wide-format hybrid printers to lower productions costs, increase capacity and throughput with fewer shifts, and decrease time to market. In fact, one early customer is looking at acquiring two VUTEk XT printers to replace six existing printers on their production floor. This is a pattern we expect to see given the significant advantages possible with the VUTEk XT printer pioneering – EFI's next-generation, super-high-speed powerhouse for high-volume production. ■

EFI Fiery and VUTEk are registered trademarks of Electronics For Imaging

Sean Roberts is Product Manager, Super High Speed, EFI Display Graphics

Further information:
Electronics For Imaging, New Hampshire, USA
tel: +1 603 285 9994
email: info@efi.com
web: www.efi.com