KODAK Digital Sheetfed Presses

From here to NEXFINITY
There are a lot of choices available when it comes to selecting a digital press

While most presses may offer some unique capabilities, there are often limitations that can negatively impact the potential business opportunity. In addition, who wants the risk of something better coming along and rendering your investment obsolete or uncompetitive?

What if you found a digital press that met all your application needs, offered a running cost that allowed you to win new business, lasted for years, and was upgradable to keep ahead of the competition? Great news: you can buy that press today!

The KODAK NEXFINITY Digital Press, Kodak’s latest innovation in digital sheetfed press technology, provides an unbeatable combination of capabilities that give you the power to optimize efficiency across your entire operation and position yourself for growth.

This five-station, 152 ppm (A4) press delivers:

- Running costs that are competitive with medium-run offset litho
- Incredible resolution and screening-on-the-fly with KODAK Dynamic Imaging Technology
- Flexible color order to maximize the range of applications you can print

This new press platform is built to last for millions of impressions while holding tight tolerances. Even better, much of the innovation built into the NEXFINITY Press is also available with existing KODAK NEXPRESS ZX Digital Presses.

New writing system boosts imaging capabilities

The NEXPRESS Platform has always been distinguished by superior imaging capabilities. The NEXFINITY Platform, however, debuts a unique new LED writing system that incorporates KODAK Dynamic Imaging Technology, enabling exceptional quality and consistency over long runs.

Here are some highlights:

- Outstanding highlight and shadow detail, thanks to multi-bit LED writers that quadruple the density of information capable of being delivered to the imaging cylinders, enabling 1200x1200 resolution with 256 exposure levels. (That’s 1.8 billion mb/in² of image information density being transferred to the LEDs at a rate that would allow you to watch over 3,100 streaming HD movies – all at the same time!)

- Exceptional image quality and consistency over longer production runs, enabled by integrated processors in each of the LED writers that process image data in real time, adjusting and correcting images on the fly. In fact, the exposure level of each LED is automatically adjusted in 256 steps between on and off every time it fires.
• Dynamic Imaging Technology also introduces a new set of halftone screens that are automatically calculated on-the-fly for areas within images, as opposed to entire images, depending on content. This computational screening technology — combined with 1200 dpi resolution — enables tight control of dot hardness, further optimizing image quality and consistency at full production speeds over long runs.

![Neutral gray with screening-on-the-fly algorithm applied](image1)
![Neutral gray without screening-on-the-fly algorithm applied](image2)

• This constant, ongoing image correction and optimization enables the press’ built-in Intelligent Calibration System (ICS) to fine-tune the automated adjustments it makes over time, maintaining uniformity at high levels and, ultimately, keeping running costs low.

**A portfolio full of business-building innovation**

Kodak’s NEXFINITY and NEXPRESS Presses provide a host of features and capabilities that can help you improve efficiency, control costs, and increase page volumes.

**COLOR AND INKS**

**Instant dry ink controls costs, drives productivity**

Unlike other processes that rely on ink in a liquid form, KODAK NEXFINITY and NEXPRESS ZX Presses use small particles of dry material to develop each color in the printing process. As the printed sheet exits the press, these particles are exposed to intense heat and pressure, liquefying the particles in a split second. The liquid state of the ink allows the material to be embedded into the fibers of the substrate, with extremely high adhesion.

Kodak’s instant dry ink technology allows the press to use a wide range of substrates without requiring costly pre-coats. It also results in prints that are immediately available for the bindery. Factor in electronic collation of material coming off the press, and you’ll quickly realize that the turnaround time for the first finished piece produced by a NEXFINITY or NEXPRESS ZX Press is dramatically lower than the offset litho process (and other digital processes that require drying time).

Test Kodak’s instant dry ink for yourself: using an eraser, try to remove part of an image produced on coated stock on either a NEXFINITY or NEXPRESS ZX Press. Then, try erasing an offset litho print or prints from other digital presses.
Easy-to-switch specialty inks
The Fifth Imaging Unit, standard on both NEXFINITY and NEXPRESS ZX Presses, enables use of 10 different inks for special applications, gamut expansion, and multiple surface finishes. It only takes 15 minutes to switch in a new Fifth Imaging Unit ink, compared to one hour or more on competitive devices.

Choice of CMYK inks
Depending on the job, four different CMYK ink sets are available and easily switchable with both NEXFINITY and NEXPRESS ZX Presses. When used in combination with different types of fuser rollers, an even wider choice of look and feel is available for any given job.

Wide color gamut
Not only is the standard CMYK gamut larger than the conventional offset gamut, you can match 92% of Pantone colors within a Delta E of 3 by using red, green or blue in the Fifth Imaging Unit.

Easy color matching
NEXFINITY and NEXPRESS ZX Presses use L*a*b as the color conversion space. Operators can quickly read targets and output with a spectrophotometer, then dial in the desired color with specific L*a*b values.

Stable color
An inline densitometer and the Intelligent Calibration System automatically stabilize color over long runs, maximizing consistency without any operator intervention.

SUBSTRATES
Long sheet capability
Both NEXFINITY and NEXPRESS ZX Presses support a maximum sheet length of 48 inches/1219 mm, enabling production of larger format printed products, as well as the ability to gang jobs for maximum productivity.

Expanded media options
Thick media support — for paper substrates up to 24 points and synthetics up to 14 mil — expands the number of applications that one press can produce, giving you the tools to sell into new customers and new markets.

Non-digital papers
Unlike many other digital devices, both NEXFINITY and NEXPRESS ZX Presses can print on standard offset litho substrates. Eliminating the need to purchase pre-coated digital stocks at a 7-15% price premium can translate to major cost savings, especially on longer run lengths.
No page size penalty
Kodak’s paper path is designed to optimize the productivity of the sheet being printed. Other digital devices may need to run a larger sheet that requires post-print operations to trim down to final product size. This is not the case with the NEXFINITY and NEXPRESS ZX Presses. If the final size is A4/8½ x 11 without bleed, sheets of that size can be used on the press, with the collated set sent straight into the bindery as it comes off the press.

On-the-fly paper adjustments
Operators can use a built-in Substrate Assistant to quickly adjust various settings — including the level of heat and pressure for optimum ink adhesion, and static discharge levels for both the front and back of a sheet for better stacking and post-finishing performance — in order to optimize image quality and performance when a particular stock is specified.

WORKFLOW

Purpose-built Digital Front End (DFE)
Developed by Kodak specifically for its digital sheetfed press portfolio, the DFE is designed to exploit the many features of the press with an intuitive interface that streamlines time to press. New features are delivered with each software release, resulting in a continuous stream of upgrades and enhancements that improve productivity and expand capabilities over time.

JDF/JMF workflow automation
Job automation can be fully achieved using JDF/JMF integration with a variety of workflows. Many small jobs can actually be printed without individual job set up, ensuring turnaround and cost effectiveness goals are met.

Remote monitoring
The activity of the press can be monitored remotely using any HTML5 device. In addition, a remote client application empowers your prepress department to prep job tickets, estimate ink usage and perform many other tasks from their workstations.

Multiple presses per operator
In offset and many digital environments, each press requires a dedicated operator. KODAK NEXFINITY and NEXPRESS ZX Presses do not demand the same. Robust press design, streamlined paper path and exceptionally consistent image quality mean that a single operator is easily able to run two or more presses.

Flexible process speeds
Both NEXFINITY and NEXPRESS ZX Press operators benefit from a tool familiar to offset press operators: the ability to slow down or speed up the press in order to optimize quality on different types of substrates. This capability can also be used to balance quality and productivity.
FINISHING

Glossy, satin AND matte
Different clients prefer different finishes. Both NEXFINITY and NEXPRESS ZX Presses can easily produce glossy, satin or matte finishes with minor operator adjustments, providing you with more options to sell to clients on a particular type of job.

Choice of inline or near-line finishing
NEXFINITY and NEXPRESS ZX Presses come with the ability to integrate finishing equipment inline, but you may also choose to use a near-line approach. It’s easy to mix and match Kodak’s presses with finishing equipment, providing a lot of configuration flexibility, depending on business needs and objectives.

Tight registration color-to-color and front-to-back
Finishing errors can be significantly reduced with tight registration. Kodak’s digital sheetfed presses use same-edge perfecting, the best way to make sure front-to-back images line up consistently. In fact, NEXFINITY and NEXPRESS ZX Presses are best-in-class at 0.3 mm spec, compared to 0.5 mm and higher on competitive devices.

ENVIRONMENT

Self-contained environmental control
Every press comes with an Environmental Control System (ECS) designed to keep the inside of the press at a common temperature and RH, which maintains consistent image quality regardless of the season. NEXFINITY and NEXPRESS ZX Presses do not require a specially built, temperature-controlled room, but can be placed in environments typical of offset litho, which helps keep costs down and quality up.

Environmentally responsible
NEXFINITY and NEXPRESS ZX Presses do not release any VOCs, use standard sheets that do not require any chemical pre-treatment, and produce output that is both de-inkable and easily recyclable. With a press design that is built to last, Kodak’s digital sheetfed presses use recyclable components, and NEXPRESS ZX Presses consume up to 2/3 less power than competitive devices. In addition, HD ink sets meet requirements for toy safety and are certified for indirect food contact.

UPTIME

Long-lasting, operator-replaceable consumables
Key consumables, including Imaging Cylinders, Blanket Cylinders and Fuser Rollers, are all optimized for long life, helping maximize uptime and reduce running costs. In addition, these consumables can be replaced by press operators when the time is right. The NEXFINITY Press ships with a cart containing swap sets, making this process especially easy and convenient.
Quick cleaning procedures

Dry inks make keeping the press clean easy and straightforward. Typically, 15-20 minutes per shift is all it takes to perform routine maintenance procedures that keep the press running at peak performance, minimizing the need for service interventions.

In-field upgrades

Kodak’s design philosophy has always been to make sure that its digital sheetfed presses are field-upgradable, helping you reduce risk, stretch your investment as far as possible, and stay competitive. Typical press life exceeds 10 years, matching the lifespan of an offset press, and many presses with over 100 million pages are still running strong.

The most versatile digital sheetfed press platform on the market

Making money and having fun doing so are the hallmarks of a great business. Every printer has their own strategy for running their business, and Kodak’s versatile digital sheetfed presses are designed to integrate seamlessly into many different environments and strategies. In shops where monthly volume requirements will exceed 1,000,000 impressions, the NEXFINITY Press provides a step-change in digital performance with offset-like features, performance and running costs, in addition to all the value-added capabilities — many of them unique — available with Kodak’s digital press technology. Where monthly volume requirements range between 400,000 and 1,500,000 impressions, the NEXPRESS ZX Press does it all, delivering benchmark performance and boosting CMYK profitability, while driving revenue with digital print enhancements.

By delivering on the twin goals of optimizing overall operational efficiency and broadening application offerings with a future-proof platform that improves over time, Kodak’s digital sheetfed presses are powerful tools that can help just about every print operation meet its strategic objectives.

For more information about Kodak’s digital sheetfed presses, visit www.kodak.com/go/nexfinity or www.kodak.com/go/nexpress.
About Kodak

Eastman Kodak Company is driving innovation and change for customers in commercial, packaging and functional printing, and enterprise services markets with one of the broadest portfolios of technologies, products, and services in the graphic communications and commercial printing markets. Solutions from Kodak offer exceptional quality, streamlined production, and scalability to grow with our customers’ businesses, and only Kodak provides digital and conventional solutions within a unified workflow. We are a worldwide team that performs with excellence, works with customers to help them succeed, and brings innovative solutions to market.