Inca SpyderX

PRODUCT BROCHURE

Flexible and powerful flatbed and roll-to-roll UV inkjet printer from Fujifilm and Inca Digital
The ultimate in all-around performance and flexibility required for graphics printing

Since 2001, Inca Digital and Fujifilm have collaborated to build outstanding inkjet printers. Based on a thorough understanding of print applications, we combine precision engineering with outstanding ink chemistry.

Setting the standard in UV inkjet flatbed printing with the Eagle and Columbia printers, Inca and Fujifilm have an established track record of bringing ground-breaking flatbed inkjet printers to the market. The Eagle – the world’s first wide format UV inkjet printer – was launched in 2000, followed by the high-speed Columbia Turbo and the Spyder 320 – many of which are still producing work. The revolutionary Onset series launched in 2007 has developed over the years leading to the launch of the Onset X Series in 2015 sold exclusively by Fujifilm.

Inca’s design and manufacturing facility in Cambridge, UK, incorporates R&D, customer support, machine assembly and commissioning, a dedicated training facility and a clean room for printhead assembly and refurbishment.

By optimizing the SpyderX system with Fujifilm Uvijet inks developed specifically for the platform, jetted through trusted Fujifilm Dimatix printheads, the SpyderX system is robust and reliable resulting in maximized uptime.
Powerful and Versatile

The robust 126" (3.2 m) wide, six-color + optional white SpyderX is available as either a flatbed or a combination flatbed/roll-fed model for handling rigid and flexible substrates.

The SpyderX is a powerful and versatile printer that produces a wide variety of products. Using Fujifilm Uvijet Ink developed specifically for SpyderX, the printer delivers high-speed (2,476 ft²/hr or 230 m²/hr) production with sharp, pinpoint accuracy.

The SpyderX builds on the heritage of Inca’s successful Spyder 320 range, the high-performance Onset platform and the innovative Onset X Series launched in 2015. Today nearly 1,000 Inca printers – all designed and manufactured at Inca’s headquarters – are in operation globally producing graphics from high profile backlit work with impeccable quality to point of purchase materials.

Optional Roll System turns the SpyderX into a hybrid device, allowing print to be produced on anything from thin films to vinyl banners to thick rigid sheets.

The 3.2 m wide roll-to-roll system turns the flatbed machine into one of the industry’s most versatile production-class printers, allowing it to produce high-quality UV print on both sheeted and roll-fed substrates. The roll-to-roll system can be purchased at the time of machine install or it can be added to an installed machine should business needs change.

With a robust motion control system and changeover time as short as walking around the machine, the addition of the roll-to-roll system converts the SpyderX flatbed machine into a truly versatile hybrid printer.
A new generation of mid-range inkjet printer

Utilizing Inca’s in-depth knowledge of core inkjet technologies along with Fujifilm’s experience, printheads and ink, the SpyderX incorporates several impressive features, including some technologies found on the high-end Inca Onset platform.

High Speed and High Quality
Inca and Fujifilm have a strong reputation for delivering superb printers with outstanding technology that deliver a level of quality and speed to the wide format market that requires no compromise.

The SpyderX was developed as a cost-effective solution for print providers looking to upgrade from legacy printers, to a new generation of press that offers high quality with high throughput. With sellable quality at speeds up to 2,476 ft²/hour (230 m²/hour) and text as fine as four point, the SpyderX offers the perfect solution for companies printing small format or large format. Whether a job requires a rapid turnaround or involves a high volume of throughput, this SpyderX can handle it.

Fujifilm Uvijet Inks
The Uvijet XS ink range (C, M, Y, K, Lc, Lm & W) from Fujifilm is an all-round UV-curable ink developed specifically for the SpyderX platform, offering customers a wide color gamut, superb adhesion and excellent flexibility. Uvijet XS Ink adheres to the most difficult substrates while still offering excellent color gamut – perfect for printing everything from POP displays to durable graphics and banners.

Fujifilm Dimatix Printheads
SpyderX Uvijet XS inks were developed working in partnership with sister company and printhead manufacturer Fujifilm Dimatix to develop optimum ink chemistry for the printheads. As part of the design process, printhead jetting patterns are tailored to the ink to achieve the best performance and reliability. SpyderX utilizes Fujifilm Dimatix Q-Class printheads that are reliable, trusted and are used in several inkjet platforms, including the Onset series.
Intelligent Features for Consistent Quality and Productivity

The automated cleaning station and on-board maintenance scheduler help to maintain the printheads without manual operator intervention, avoiding compromising on throughput and quality.

A mist extraction system further reduces nozzle clogging while the on-board nozzle mapping technology allows the machine to cope with deviated or missing nozzles without slowing down production or a loss in quality.

Roll-To-Roll System

Increasing the functionality of the SpyderX, the robust and reliable roll-to-roll system can be added to any existing or new build flatbed SpyderX to turn the platform into one of the industry’s most versatile production-class printers. With a robust motion control system, and with a changeover time as short as walking around the machine, the system is able to handle rolls up to 126” (3.2 m) wide and is fitted with high precision components to ensure accurate and wrinkle-free media transport.

Multiple Layers

Thanks to its innovative design, the SpyderX is able to print up to eight layers. Each layer can be set independently using the most suitable print mode, ensuring that each layer within the job is printed efficiently at the required quality. The registration pins and intuitive user interface make multi-layer and double-sided printing a simple and seamless task.

Vacuum Zones

The vacuum table is divided into six zones which reduces masking time for the operator and ultimately increases the throughput of short-run, fast turn-around print. Vacuum zones are independently controlled and the auto zone functionality allows the selection to be easily managed by the operator. Vacuum strength can be adjusted according to the size and type of media allowing even the most challenging substrate to be fixed securely.

Quality is key

Print-a-Shim

The SpyderX platform incorporates state-of-the-art, patented technology in which the vacuum table is optically mapped and adjusted to give optimum print quality across the full area of the bed. Whatever the application, whether it is photographic imagery or nesting a fine text file across the printable area, the SpyderX delivers.

UV System

The operator-controlled UV system of the SpyderX allows even the most delicate and challenging materials to be printed. The ability to alter the level of UV improves the adhesion to the most difficult substrates while still providing the flexibility required for finishing. The six-zone vacuum table reduces bed masking requirements which in turn shortens setup times, increasing overall machine productivity.

Registration Pins

The 126” x 79.9” (3.2 m x 2 m) table is equipped with eight registration pins that enable the efficient and accurate positioning of media when printing double sided work on the flatbed.
Intelligence for printing into the future

Inca printers have a justified reputation for extraordinary reliability and unmatched production uptime. The combination of compatible hardware, software and inks on a well-maintained machine can mean the printheads can potentially last the lifetime of the printer.

Inca Vision
A major contributor to such performance is Inca Vision, a software based customer support service unique to Inca Digital and developed to ensure that operators implement regular preventive and corrective maintenance. Inca Vision allows remote monitoring and diagnosis of printers in the field, conducting diagnostics to determine how well they are performing and, often before customers have a problem, decide if there is a need for engineering support.

Dashboards used by the Inca Digital Support Team provide a view of high-level data across machines throughout the world. A RAG (Red, Amber, Green) screen allows the support team to identify and prioritize printers requiring urgent attention.

Automated Cleaning
The automated cleaning station helps to maintain the printheads without manual operator intervention or purging, ensuring there is no compromise on throughput or quality. The automatic cleaning function is a seamless part of daily maintenance and ensures the printheads are always in the best possible condition. This dramatically reduces labor time and the loss of productivity associated with troublesome printhead cleaning procedures. A mist extraction system further reduces nozzle clogging.

Maintenance Scheduler
The built-in maintenance scheduler displays and plans the daily, weekly and monthly tasks to be completed by the operator. The completion of a task is logged against the username and can be tracked by business operations and support engineers.

Nozzle Mapping
Inca’s patented nozzle-mapping feature minimizes print quality issues caused by deviated, unstable or blocked nozzles. To identify defective nozzles, the operator prints a test pattern and then identifies and inputs the defective nozzles into the user interface. The machine then prevents jetting from affected nozzles and compensates with adjacent functional nozzles. The procedure takes on average less than five minutes. This ensures continuous operation with no loss of either productivity or image quality.

Mechanical Substrate Height Detectors
State-of-the-art Mechanical Substrate Height Detectors (MSHD) help to protect the print heads from unwanted objects on the bed, such as masking tape or media folds. A pre-sweep before the print identifies any potential threat to the print heads and if a barrier is within 0.25 mm (0.1") of the printheads, the MSHDs will detect this and stop the carriage before any impact is made.

Service and Support Network
Your business depends on maximum uptime from your digital equipment. Inca Digital and Fujifilm recognize that your investment in cutting-edge technology needs to be matched by a support service that is customer focused, responsive and reliable.

SpyderX installations are supported by warranty, parts and service package options, tailored to best suit your business. Front-line support is available throughout North America using engineers certified at Inca’s training facility in the UK.
**White Ink**

The ability to print with white ink is the ideal solution for businesses that produce high-value backlit/frontlit and double-sided day/night POP display graphics where the ability to print high-opacity white as a base, spot color or top layer quickly and cost effectively is important.

With two optional white channels on the SpyderX, application possibilities are expanded as it enables the printer to produce jobs on clear material and dark substrates efficiently. Using Inca's Layer Editor software adapted from the Onset series of printers, white is printed to maximize production.

**Every Drop Matters**

The SpyderX printhead array jets millions of drops per second, each directed to a precise location, producing hundreds of square feet of high-resolution prints per hour.

The demands on printheads and ink performance are very high, but to jet well and reliably, they must be designed for each other.

Uvijet inks are developed by Fujifilm Speciality Ink Systems in the UK, working in partnership with sister company and printhead manufacturer Fujifilm Dimatix to create optimum ink chemistry for the printheads. As part of the design process, printhead jetting patterns are tailored to the ink to achieve the best performance and reliability.

Ink drop formation from printhead to substrate. To achieve the best image quality SpyderX must fire a drop at the print surface to land with pinpoint accuracy and in perfect shape.
See for yourself

Fujifilm Technology Center for Graphics
Fujifilm’s state-of-the-art demonstration facilities are available for you to test-drive the SpyderX, put it through its paces, and see how well it handles your work. Experience a demonstration of how SpyderX produces the right quality print at the throughput speeds you need to prove your return-on-investment calculations.

Your sales representative can arrange a visit to the Fujifilm Technology Center in Hanover Park, IL, where you can see all the latest machines and software in Fujifilm’s wide format systems portfolio.

Fujifilm Wide Format Systems
Fujifilm’s high performance inkjet platforms are based on UV curing inkjet technology, fueled by Uvijet ink which delivers instant curing and high production speeds with excellent image quality and color vibrancy.

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