

Xerox® CiPress® 500  
Xerox® CiPress® 325  
Production Inkjet Systems  
Brochure



# Xerox® CiPress® 500 Xerox® CiPress® 325 Production Inkjet Systems

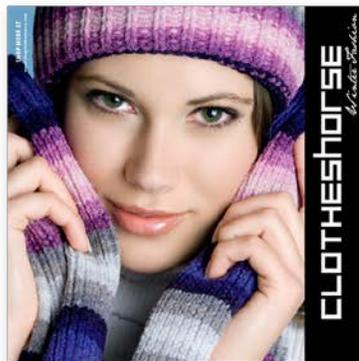
Innovative waterless inkjet technology delivers predictable high-quality color on low-cost plain papers.



# Delight your customers with unsurpassed color output on low-cost, untreated plain paper.

This waterless inkjet system enables you to produce more jobs with consistency, predictability and reliability, grow your business with high-quality color applications with dependable productivity and reduce your costs using inexpensive plain papers. The Xerox® CiPress® 500 and the Xerox® CiPress® 325 Production Inkjet Systems offer you a distinctive combination of flexible low-cost plain paper options, unique patented waterless inks, rugged piezo print head technology and an innovative print process.





## Raise your performance level. Reduce your costs.

With the Xerox® CiPress® Production Inkjet Systems, you can achieve outstanding color results on plain paper that is uncoated and untreated, including economical offset papers.

Our advanced waterless inks and direct-to-paper print process deliver exceptional output on stocks ranging from lightweight 29 gsm to 160 gsm. It is ideal for your Transactional, TransPromo and Direct Mail, Catalogs and Manuals applications that use untreated plain paper stocks.

The benefits of plain paper include:

- Use of lower-cost offset stocks
- Easier management of inventory
- Use of lightweight stocks with higher yields per roll
- No long lead time for special inkjet treated papers
- Avoid high cost of inkjet treated papers
- No disruption to existing supply chain

With Xerox® CiPress® printers, you can continue to use your existing paper stocks—even your offset litho stocks—to optimize productivity, improve lead time and obtain greater cost benefits.

- **Cut application and paper costs.** You can take advantage of lower-cost, lightweight paper alternatives, such as offset, for many of your applications and still see great results with optimum productivity. Our inks sit on top of the paper much like toner and litho inks rather than soaking into the paper's fibers like current water-based inkjet technologies. With our patented waterless inks, we enable high saturation and area coverage on stocks as light as 29 gsm, with no show-through or strike-through. As a result, you can manage your postal rates more effectively or include more sheets per envelope for enhanced, more personalized marketing messaging.
- **Eliminate preprinted shells.** Lower your cost of manufacturing by eliminating the associated supply chain costs of preprinted shells, such as storage, transportation, labor, obsolescence and materials handling. You can print both static and full color variable data on plain uncoated paper like bills, statements, invoices and personalized direct mail.

- **Produce more jobs with greater reliability.** Designed for the print and mail industry as well as publishing markets, the Xerox® CiPress® system delivers more reliable flat sheet output, improving post-processing equipment performance, enabling more efficiency, productivity and uptime with your finishing, inserting and mailing equipment. Even with high area coverage, cockle and curl are significantly reduced or eliminated because we use no water in our printing process or inks. Because we do not soak the paper with water, we eliminate the problems with water and paper saturation that can cause severe cockle and curl in your output.

The Xerox® CiPress® Production Inkjet System builds on our history of innovation as well as our commitment to the continuous feed market. As a multi-technology company, we have over 5,000 world-class scientists and engineers working constantly to expand the technologies and solutions we offer to our customers. Over the past decade, we have developed a portfolio of continuous feed solutions that range from 350 to 2,180 images per minute and high speed variable data Production Print Controllers since 1977.

# Expect vibrant color images with the Xerox® CiPress® 500 and the Xerox® CiPress® 325 Production Inkjet Systems.

Our patented waterless inks deliver bright, vivid color and excellent image quality—all on low-cost plain papers. No need for extra bonding agents or expensive specially treated inkjet papers.

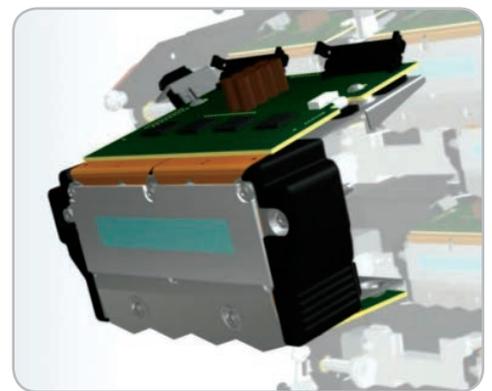
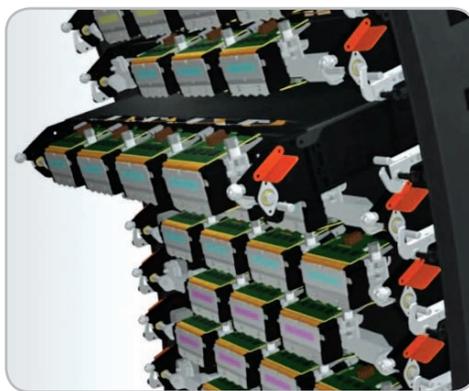
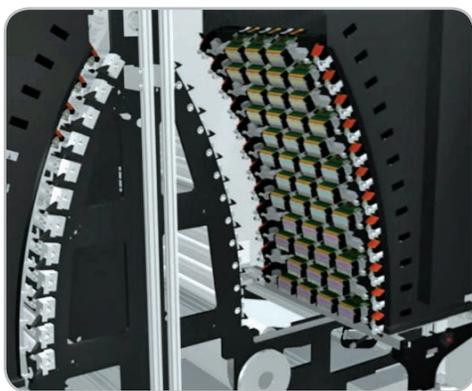
Our waterless inkjet technology offers you significant advantages, especially in contrast to other aqueous inks and their printing processes that require adding high amounts of water into the paper.

The benefits of Xerox® waterless inks include:

- **High image quality is assured.** The Xerox® CiPress® 500 and 325 Production Inkjet Systems deliver resolutions in either 600 x 400 or 600 x 600 dpi with a

wide color gamut for the most demanding applications. Precise, well-controlled, predictable dots hold their shape to produce sharp edges and excellent bar code readability with crisp fonts, images and graphics. Our patented closed loop image processing ensures you get consistent, predictable results for every job, roll to roll and month to month, enhancing your efficiency and ability to meet your Service Level Agreements (SLAs).

- **Ongoing system reliability.** Our unique waterless inks are part of the key to the Xerox® CiPress® printer's high reliability and uptime. Our print heads and inks are not affected by evaporation, the most common cause for print head clogging and failure. With our innovative technology, our ink can remain unused in our print heads for weeks and the print heads will still fire on demand, meaning there is no requirement to cap the print heads or worry about open time. This also means quick startup, more uptime and reliability, fewer stoppages and cleaning cycles and, ultimately, greater production, less waste and more output per shift.





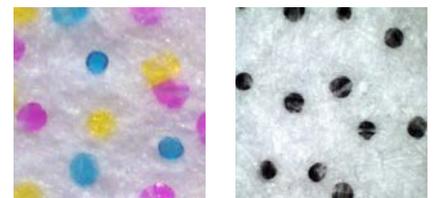
- Easy to handle, manage and store.** Our waterless inks are dry granules that feed easily, melt quickly and are easy to store and refill. You don't have to move or recycle our ink dispensing drums because they are permanent fixtures. You can refill them on the fly, while the system is running, from smaller, lighter, easy-to-handle 10 kilo containers. This saves your operators from handling large, heavy drums with awkward hoses and messy liquids, increasing your productivity and uptime. Storage is worry-free because these waterless inks have no shelf-life restrictions.
- Waste less ink.** Setup, registration, alignment patches and cleaning procedures are automated, saving you time and money and minimizing waste for both ink and paper. No clean and purge procedures are required during standby modes to keep the ink from evaporating and clogging the heads that, in turn, may require additional cleaning or head replacement.
- Ink optimization.** Twelve new choices are now available for ink management from the highest quality for high value applications down to a 54% ink savings for less demanding applications. Instant flexibility on a job by job basis helps manage ink cost to leverage margins while still enabling choices for maximum image quality for those direct mail or catalog applications. In addition, the powerful Pantone editing feature can protect any identified objects on each page for optimal color. This is ideal for maintaining maximum print quality for client logos and branding while still allowing ink reduction on the rest of the page.

- New enhanced smoothing.** This is beneficial for certain applications that require an extra level of smoothness, such as photos with facial tones, tints or gradients.
- Ink estimation and monitoring.** Ink estimation tools based on area coverage can be highly inaccurate. With the Xerox® Ink Measurement Press Tool, we can accurately estimate the actual amount of ink used by measuring the post-RIP file after all color management has been applied for precise ink usage, which will enable more accurate job estimation. Productivity is increased with the electronic soft proofing capability taking the proofing off the press.
- Vector Halftoning—patented ink drop management and positioning.** Process all four color channels simultaneously to optimize drop placement. Reduce occurrences of drop-on-drop to efficiently fill the white spaces before adding more ink drops on top of each other. The result is less ink usage while maintaining vibrant image quality with a wide gamut equivalent to offset on uncoated papers.

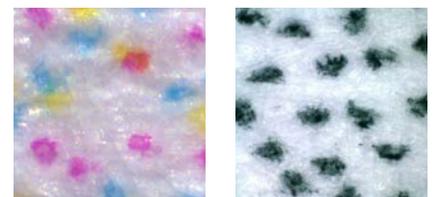
## Consistently Excellent Inks

We've been developing inkjet technology for two decades and have manufactured thousands of tons of waterless, resin-type inks. Leveraging that experience, we understand the economies of scale and precise quality controls needed to ensure that our product delivers excellent performance the first time and every time you use it. Our stringent ink manufacturing guarantees you will find our ink colors to be consistent and uniform from one batch to the next, month after month.

The images below are 10X enlargements of 75 gsm offset paper.



Xerox® Production Waterless Ink



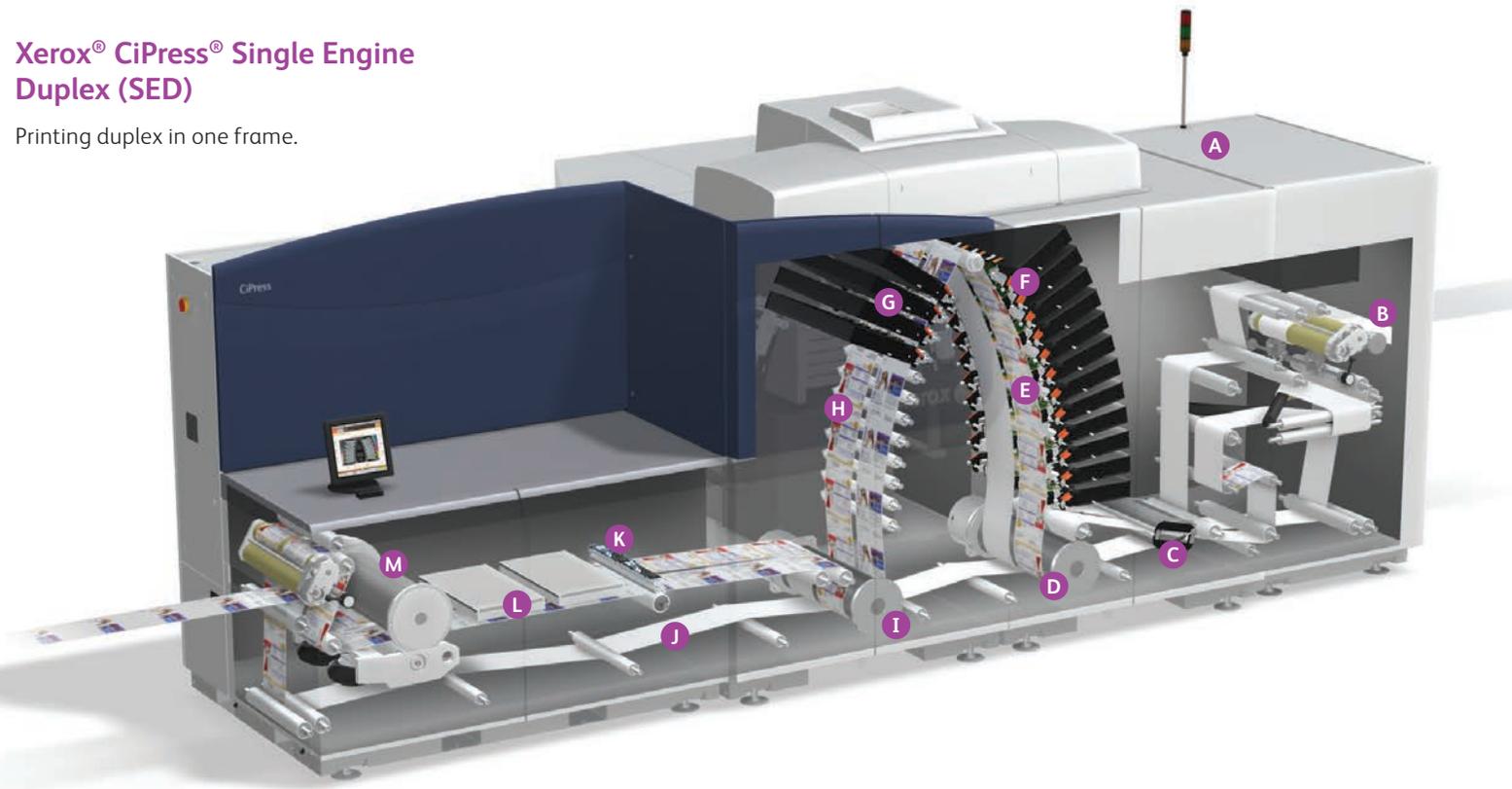
Aqueous Ink

# Innovative New Print Process

The Xerox® CiPress® 500 and Xerox® CiPress® 325 Production Inkjet Systems' print process is robust yet simple. Built on a heavy-duty web press transport, it offers precise motion controls with closed loop monitoring for automated missing jet detection, correction and registration. The print process uses precise web motion and thermal controls with a patented "reflex" process for web management, monitoring and correction of paper stretch and movement. This ensures very accurate pixel-to-pixel, color-to-color registration and drop placement, job to job, roll to roll, month after month.

## Xerox® CiPress® Single Engine Duplex (SED)

Printing duplex in one frame.



**A** Ink granules are fed from drums

**B** Blank web enters printer

**C** Web cleaner removes dust and chads

**D** Web is warmed

**E** Side one printing

**F** Ink granules are melted to a liquid

**G** Molten ink is jetted directly onto the web and hardens instantly

**H** Side two printing

**I** Web is cooled

**J** Blank side one face down returning for side two imaging

**K** Intelligent Scan Bar sensor scans web for image quality consistency and uniformity and to detect missing jets

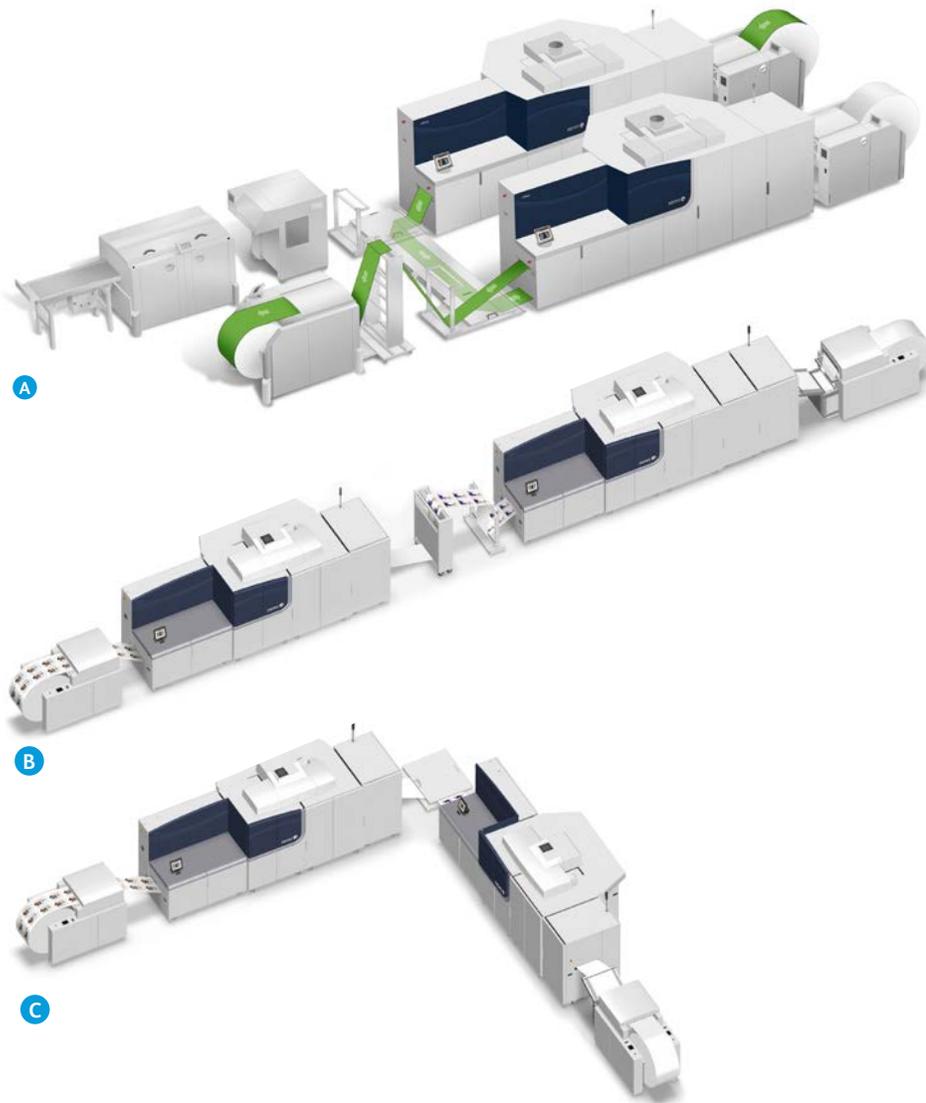
**L** Web is warmed with low temperature ceramic heater

**M** Ink is pressure fixed onto the web

## Flexible Configurations from Entry Level to Maximum Production

Multiple configurations of the Xerox® CiPress® 500 or Xerox® CiPress® 325 Production Inkjet Systems enable you to adopt inkjet technology, and configure a system to match your production needs and the layout of your facility to maximize flow of people and materials. Our newest Single Engine Duplex (SED) system enables economical duplex printing in one frame minimizing footprint and capital investment while still producing 1,090 1-up letter size (1,026 A4) prints per minute. The multiple layout choices for a twin engine duplex system include inline, 90 degree or next to each other in parallel, either face to face or front to back. The Twin Engine Duplex (TED) configurations enable 2-up letter throughput up to 2,180 prints per minute (2,052 A4). The flexibility doesn't end there. You start out with a single engine for simplex or duplex printing and add a second system at any time—as your business grows. You can also enable duplex backup with the Single Engine Duplex Kit installed in both printers of a twin configuration enabling you to switch to SED on either of the printers if needed.

- A** Xerox® CiPress® Front to Back
- B** Xerox® CiPress® Inline Configuration with MICR Module
- C** Xerox® CiPress® 90 Degree



## New MICR Optional Print Module for Check Printing

Combine the efficiency of printing a high density MICR line with the benefit of full color content in a single pass. A unique inline MICR inkjet module can be added at the factory or upgraded on site expanding your capabilities and protecting your investment. The module is available with 4-head and 8-head configurations for 8.5" or 17" print areas for 2-up business and 12-up personal check printing.



## New Inline Anilox Coating System

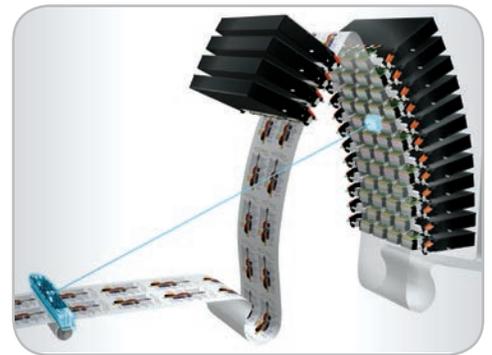
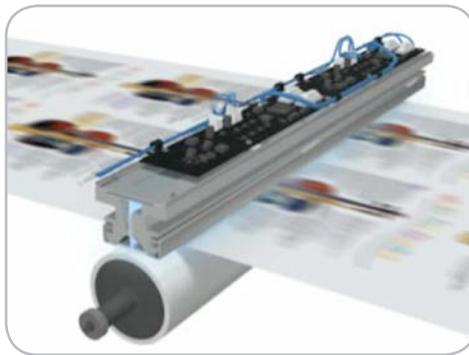
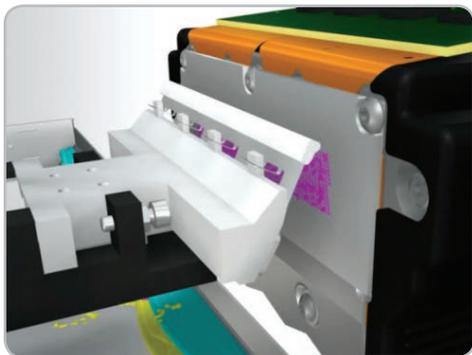
The Megtec inline aqueous coating system enables multiple flood coat fluids to be applied automatically inline at full machine speed. Whether for the extra value of high gloss look and feel or the added durability and protection for the mail stream, the Megtec inline coater enables more applications with full automation and less labor than traditional offline post-process coating methods.



# Intelligent print heads deliver on the productivity promise.

Piezo mechanical drop-on-demand technology gives you reliability, durability, consistent density and uniformity of color output for every roll, every week. With over one million made and installed to date, these modular print heads are long lasting with less maintenance, delivering more real print time every shift.

At 39,000 drops per second, ink is dispensed at very high speeds with web throughput at either 500 feet (152 meters) or 325 feet (100 meters) per minute. The four color CMYK system has 56 print heads, and all 50,000 jets are managed individually and controlled for accurate pixel placement on the page. Our jets are tunable, which means software and process controls can manage the waveform, behavior and performance of each piezo crystal that drives each jet. Every jet is tuned and calibrated to be uniform and consistent for accurate drop size and placement. This unique tuning also extends print head life by adjusting weak or excessive jetting to the right normalized level. Taken together, these factors deliver highly predictable image quality and very reliable, consistent output roll to roll, site to site, across all substrates, month to month.



## More uptime = more productivity.

You'll find productivity is engineered into every area of the Xerox® CiPress® Production Inkjet System. We have automated many processes to minimize operator intervention, saving time and money. The result is a system that offers you more uptime and more opportunity to generate more output each shift.

Productivity features include:

- Speeds at 500 feet (152 meters) or 325 feet (100 meters) per minute
- Wide web width, 9" (229 mm) to 20.5" (520 mm)
- Closed loop monitoring
- Intelligent Scan Bar
- Automated print head maintenance, including robotically controlled print head cleaning
- Quick setup
- Automatic head registration and alignment
- Missing jet detection and auto correction on the fly
- Modular manufacturing for installation and easier, more efficient servicing
- Ink optimization to manage quality and cost at the printer saves time and money
- No profiling of papers required

## Increase your uptime and reduce your costs with intelligent automation.

Print head maintenance is automated to save your operators time and labor. It also extends print head life and increases your productivity and uptime.

- **Automated print head cleaning.** The cleaning process is robotically controlled and completed in minutes; there is no need for operator intervention. The system monitors and automatically detects which print heads require cleaning and determines when cleaning is needed. The amount of waterless ink purged in cleaning is minimal, reducing the amount of wasted ink and paper you discard. And because the ink is safe and non-toxic, it does not require licensed waste removal.\*
- **Automated missing jet detection and correction.** The Xerox® CiPress® Production Inkjet Systems' Intelligent Scan Bar detects missing jets and automatically compensates with adjacent jets—on the fly, in real time and at full machine speed—to ensure that your print quality remains consistent. The scan bar (which is also used in our Xerox® iGen4® Press technology) is so sensitive it can detect and correct a single malfunctioning jet in many cases before the human eye can see it. With the Xerox® CiPress® printer you can rely on our automated closed loop detection and correction system for print head performance and reliability. Your operator can monitor all of this activity on the Graphical User Interface.

- **Easy print head replacement.** While our intelligent piezo print heads are a durable long-life component of the system, when they eventually do require replacement, an operator can pause the production run and replace the print head quickly and easily. Print heads are a consumable item so you always have spares on hand.

### Key Attributes of Our Patented Print Heads

- Modular 3" patented design
- Onboard intelligence with values stored in non-volatile memory (NVM)
- Multiple overlapping arrays up to 20.5" (520 mm) web width
- Fourteen print heads per color
- Precise thermal control
- Individual management of all jets
- Acoustic and fluidic process controls
- Auto registration adjusts the print head positioning for color-to-color and front-to-back registration automatically, on the fly in real time

\*Please consult your state and local requirements for proper disposal.

# Xerox® FreeFlow® Print Server— An Open Solutions Platform

The power behind the Xerox® CiPress® 500 and Xerox® CiPress® 325 Production Inkjet Systems is the Xerox® FreeFlow Print Server. The FreeFlow Print Server offers scalable RIPs and servers with the power to handle even your most complex jobs and confidence to meet your most challenging SLAs. With over 40,000 installations, the Xerox® FreeFlow Print Server has the heritage and experience you expect.



- **Scalable RIP to match the complexity of your jobs and maximum speed of the printer.** Architected for scalable, parallel RIPing across multiple computers, the Xerox® FreeFlow Print Server also uses integrated caching technologies. You take full advantage of these technologies by choosing the number of RIP servers. This enables you to scale RIPs to match the complexity of your applications so you can maximize the print engine's speed without clutching.
- **Native data stream support gives you flexibility.** The Xerox® FreeFlow Print Server supports native data streams, including IPDS™, PDF, PostScript® and Xerox® VIPP®, without transforms or interim data formats. It offers both native data stream support and parallel RIP to give you more control, enabling you to streamline your workflow and leverage maximum performance with no impact to rated speed.
- **Xerox® FreeFlow VI Compose: Variable data printing that keeps pace.** The Xerox® FreeFlow® VI Suite, featuring VI Compose, can substantially improve your productivity for printing personalized communications. VI Compose uses a “Dynamic Document Construction” (DDC) method of document composition, meaning you send the document and the associated data and variables directly to the printer without any precomposition. This saves valuable network

resources, eliminates bottlenecks and significantly reduces the time needed to print the job. Maximize the power of Xerox® CiPress® printers with the Xerox® FreeFlow Print Server and produce variable jobs with unsurpassed speed and efficiency.

- **A reliable predictable environment.** The Xerox® FreeFlow Print Server has almost a 20-year heritage of proven performance processing variable data and static application content. Native support for industry standards, like JDF and JMF, ensures our solution will integrate seamlessly with your current workflow.
- **Consistent color means confident color.** The Xerox® FreeFlow Print Server has advanced color management features built-in to ensure reliable, predictable color output across all data streams. Xerox® ConfidentColor is delivered via source and destination profiles, object-based color management, rendering intents with intelligent closed loop color control. All of this automation delivers consistent worry-free color out of the box, roll to roll, engine to engine, anywhere around the world.
- **Achieve your business goals faster.** Choose the workflows you want. Choose the power you want. The Xerox® FreeFlow Print Server will deliver the productivity you need to meet demanding customer requirements.

# Green is this printer's favorite color.

Environmentally responsible features and components focus on environmental sustainability and are apparent in the Xerox® CiPress® 500 and Xerox® CiPress® 325 Production Inkjet Systems.

- **Safe, non-toxic ink.** Xerox® CiPress® printers use waterless inks that are safe and non-toxic with no special disposal required. We recommend that you consult with your state and local waste disposal authorities for additional information.
- **NAPIM certified ink (in the U.S.).** Xerox® solid ink has been certified to have 30% bio-derived renewable material content by the National Association of Printing Ink Manufacturers (NAPIM).
- **INGEDE certified output.** Our output is INGEDE (International Association of the Deinking Industry) certified "Good De-inkable." This is the highest possible rating based on ERPC (European Recovered Paper Council) Deinkability Scores. The Xerox® CiPress® Production Inkjet Systems are the only high speed inkjet devices in the market that have received this certification. This means that output from Xerox® CiPress® printers can be recycled from white paper back into white office paper.
- **Dryer-free design.** Because no water is used in our ink and printing process, this system does not need costly, energy-consuming dryers.
- The CiPress® system's power consumption does not increase with higher area coverage.



- **Reduced sensitivity to shop floor environmental control.** Our print process is less sensitive to fluctuations in temperature and humidity. Little or no paper acclimatization is required, which means you'll enjoy easier paper handling and more flexible use of "on hand" stocks.
- **Print head recyclability.** Manufactured to our highest standards using patented techniques and durable stainless steel components, our print heads are tough and durable and then returned to Xerox for recycling.
- **Efficient paper and ink use.** Paper and ink waste is minimized due to efficient setup, registration, alignment patches and cleaning and maintenance procedures.

# Specifications for the Xerox® CiPress® 500 and Xerox® CiPress® 325 Production Inkjet Systems

## Printer

- Print Engine: Continuous Feed, Digital Web
- Configurations: Single engine simplex (SES), single engine duplex (SED), twin engine duplex (TED)
- Imaging Technology: Inkjet Drop On Demand (DOD)
- Inks: Dye for CMY, Pigment for K waterless
  - Capacity: 80 kilo permanent drum with 10 kilo refill containers
- Output: 600 x 400 or 600 x 600
- Print Speed: 500 fpm (152 m) and 325 fpm (100 m)

## Paper Handling

### Web Width

- Pinless or Pinfed:
  - Single Engine Simplex and Twin Engine Duplex 9" (229 mm) to 20.5" (520 mm)
  - Single Engine Duplex 7" (178 mm) to 9.5" (241 mm)

### Image Area

- Pinless/Pinfed: single page image
  - Single Engine Simplex and Twin Engine Duplex Width: 1 pixel to 20.1" (495 mm) Length: 6.5" to 22" (165 mm to 559 mm)
  - Single Engine Duplex Width: 1 pixel to 9.18" (233 mm) side one, 8.5" (216 mm) for side two Length remains the same at 6.5" to 22" (165 mm to 559 mm)
- Paper Types: Pinfed, pinless, uncoated, offset, recycled, bond, newsprint
- Paper Weight: 29 gsm – 160 gsm\* (19 lb – 108 lb offset)
- Pre- and Post-Processing: The printing system does not include web input or output devices. These must be purchased separately from authorized Xerox Partners.
- Pre/Post device configurations supported: Roll to roll, roll to fold, roll to cut sheet

## Xerox® FreeFlow® Print Server

### Data Streams

- Adobe® PostScript® (must be DSC-compliant)
- Adobe Acrobat® 9.0, PDF 1.7, PDF/X 1a, 3, 4
- Native IPDS™ rendering
- Xerox® VIPP®
  - Line Mode, Database Mode and Native

Speed in Images per Minute	Xerox® CiPress® 500 Twin Engine	Xerox® CiPress® 325 Twin Engine	Xerox® CiPress® 500 Single Engine Duplex	Xerox® CiPress® 325 Single Engine Duplex
Simplex: U.S. Letter (8.5" x 11") Portrait one-up Portrait two-up	545 1,090	354 708	545	354
Duplex: U.S. Letter (8.5" x 11") Portrait one-up Portrait two-up	1,090 2,180	708 1,417	1,090	708
Simplex: A4 (210 mm x 297 mm) Portrait one-up Portrait two-up	513 1,026	333 667	513	325
Duplex: A4 (210 mm x 297 mm) Portrait one-up Portrait two-up	1,026 2,052	667 1,334	1,026	667
Maximum Duty Cycle	60M	42M	34M	24M

## Xerox® CiPress® MICR Specifications

- MICR line delivered via fifth color channel in the Xerox® FreeFlow Print Server DFE
- Data Streams: IPDS, Postscript, PDF
- 325 and 500 fpm print speeds
- Imageable area for MICR line: Up to 17", supporting 2-up business checks and 12-up personal checks
- Signal strength >80 (Canada) per CPA Standard 006 at 325 fpm
- Signal strength >50 (U.S.) per ANS X9.100-20 at 325 and 500 fpm
- E13-B and CMC7 fonts
- MICR to CMYK registration +/-0.5 mm
- MICR character alignment to check edge +/- 1/16 inch (1.6 mm)
- 20 – 24 lb uncoated (plain and preprinted) media and check safety stock
- Pinless and pinfed media
- MICR printing enabled on upstream engine of twin engine system
- Security Features Supported:
  - Xerox® MicroText
  - Copy Void Pantograph
  - Original Document Watermark
- Consumables:
  - 2L bottle MICR ink
  - 2L bottle Jetfix flush fluid
  - MICR print head

## Installation Environment

- Dimensions per Engine:
  - H x W x D: 78.7" (199.8 cm) x 23.6" (60 cm) x 47.2" (120 cm)
  - MICR Module adds 37.3" (94.8 cm) in width
- Weight:
  - Print engine (including Thermal Controller and four ink drums)—12,641 lb (6,697 kg)
  - MICR Module adds an additional 1,450 lb (658 kg)
- Room Temperature:
  - 60°F to 85°F (15.6°C to 29.4°C)
- Relative Humidity:
  - 20% to 80%
- Heat Output: 91,800 BTU/hr
- Electrical Requirements:
  - North America (1) 480V 75A 3-phase (1) 208V 100A 3-phase
  - Europe (1) 380V – 415V 75A 3-phase (1) 380V – 415V 100A 3-phase
  - Electrical Consumption Standby: 14.5 kWh Printing: 27 kWh

\*Heavier paper weights and matte coatings are possible based on successful testing by Xerox.

To learn more about the Xerox® CiPress® 500 and Xerox® CiPress® 325 Production Inkjet Systems, contact your Xerox representative or visit [www.xerox.com](http://www.xerox.com)

