

SCREEN



CREATING A FUTURE
IN PRINT

Truepress JET 520HD Series

Full color high-speed roll-fed Inkjet digital printing system

Creating a vibrant new era for
high-definition inkjet printing on offset stocks



Truepress ink SC+



EQUIOS
ART & UX

Truepress JET 520HD Series

Supremely reliably performance
that redefines printing standards



The Truepress JET 520HD series delivers outstanding printing power with offset quality. High-volume production needs are answered with speed and reliability. Truepress JET 520HD printers also offer the type of flexibility only available with digital printing, enabling a higher level of added value.

These systems are the future of print on demand production. Their wide array of capabilities are challenging established practices and giving our customers the chance to win business and maximize profitability.

Precision printhead assembly,
fully adjustable drying mechanism



Wide gamut inks with extensive
color management



Comprehensive workflows
with highly developed automation



Books

The ability to print on a wide range of paper stocks without the need for pre-treatment and a fully automated workflow enable full scale "book of one" production. Outstanding productivity and uptime, superb color reproduction and impressive detail all contribute to the achievement of the quality levels required for high-end publication work.

Commercial printing

Truepress JET 520HD systems deliver offset-quality production on the wide variety of stocks required by the commercial printing market, including heavy weight offset coated and uncoated stocks ranging from 40 to 250 gsm. This enables the production of catalogues, brochures, POP displays and a wide range of other applications essential for commercial printing.



Transactional printing, direct mail

With the declining interest in paper-based informational mail and the rising cost of paper, the value of transactional mail real-estate has become exponentially more valuable. Comprehensive workflow and superior print quality enable you to produce high-density black print for account information and high-quality color for the marketing information that is included with it.

Other applications

The Truepress JET 520HD series incorporates a wide range of core technologies, such as excellent print quality, automated workflows, and comprehensive imposition with ample color management functions. These strengths make it ideal for on-demand printing of many different applications.



RICH COLOR EXPRESSION

Truepress ink SC+

for Truepress JET 520HD

Our SC+ inks are proprietary water-based inks designed to print directly onto offset coated paper. Their unique permeability and adhesion technologies eliminate the need for an anchor coat while helping to preserve the texture of papers and reduce operating costs.

SC+ inks offer high density with no bleeding, enabling the formation of sharp, well-defined dots. This allows the Truepress JET 520HD series to create rich, vibrant color comparable with offset printing. The reproduction of deeper blacks opens up new, higher-quality applications that will allow printing companies to truly differentiate themselves.

Wide gamut inks

Our unique Truepress ink SC+ includes vivid process inks that enable wide gamut color reproduction. These highly engineered inks are the result of many years of dedication to the development of the ideal combination of ink, inkjet printer, screening and workflow, all working in concert to enable you to deliver the best product to your customers. Take advantage of this winning combination to help grow your business.



Truepress ink SC+ (4 colors)

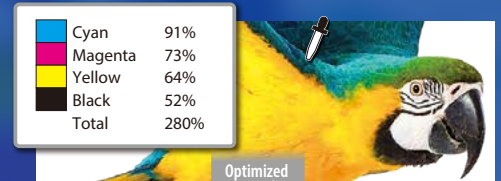
Standard offset printing

Advanced ink amount (AIA) control

AIA is a proprietary ink volume optimization technology that includes a color management system. It works with the high drying capacity of the Truepress JET 520HD series to achieve finely tuned ink control.

This technology reproduces the full color gamut possible with SC+ inks, delivering extremely vivid color expression. Its precise control reduces over-application of inks and significantly improves the appearance of gradations in shadow areas.

CMYK values for digital data



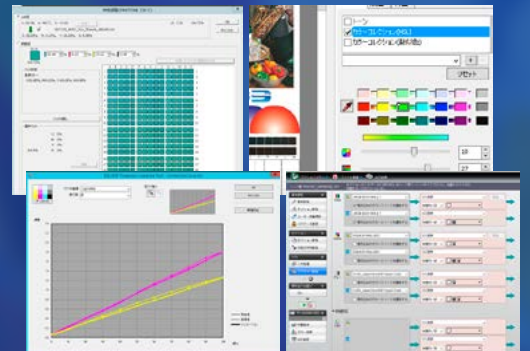
The discharge volume for each ink color is optimized based on the print conditions



Advanced color management tools

The Truepress JET 520HD series supports robust color management, including focused adjustment of targeted colors, easy application of spot colors, individual tone control and intuitive adjustment of target color samples. Profiles are linked to print conditions (paper, resolution), providing unified control.

These functions free operators from color management tasks and allow them to concentrate exclusively on output requirements.



AI-based quality control

Advanced image processing technologies detect and correct minute differences in the inkjet heads to optimize jetting. This ensures high-quality printing in all density ranges. Proprietary AI technology provides precise, real-time inspection of all printed matter, enabling outstanding control of print quality.

Note: The AI engine has already been trained using actual printed images and does not include an automatic learning function. This prevents the deterioration of inspection accuracy due to incorrect learning.



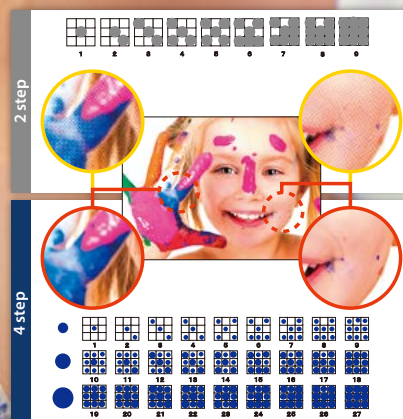


PRECISE, HIGH-DEFINITION PRINTING

Featuring high-resolution 1,200 dpi printheads

All Truepress JET 520HD systems incorporate advanced image processing technologies, one of our core areas of expertise, and high-definition 1,200 dpi inkjet printheads. Together, they enable more precise reproduction of the gradations for mid-tones as well as extremely small text and fine lines.

Each system also features a unique design that supports highly stable paper transport and industry-leading registration accuracy. This substrate stability and control maximizes print quality.



Maximum resolution of 1,200 dpi

The adoption of newly developed grayscale heads allows multi-droplet printing at a resolution of 1,200 dpi. This enables extremely high-quality output of the gradations for mid-tones, supporting smooth color reproduction with minimal graininess.

High-precision printhead assembly

Made in Japan quality

Single pass inkjet printheads arranged in an optimized design, and the production technologies necessary to precisely utilize them, enable rapid, high-resolution printing. A stringent control system also ensures exceptional stability and quality in all stages of production.

5 pt	Truepress JET 520HD: Always sharp and easy to read
4 pt	Truepress JET 520HD: Always sharp and easy to read
3 pt	Truepress JET 520HD: Always sharp and easy to read
5 pt	Truepress JET 520HD: Always sharp and easy to read
4 pt	Truepress JET 520HD: Always sharp and easy to read
3 pt	Truepress JET 520HD: Always sharp and easy to read

Substrate control

Highly responsive paper transport technologies

Truepress JET 520HD systems use a proprietary multi-spindle transport system that is designed to transfer papers of various basis weights with outstanding precision and stability. The system maintains paper tension at a consistent level, enabling high-speed web (roll) control.

Any web wander not handled by the transport system is corrected by using multiple sensors and software to ensure high registration accuracy during printing. Our proprietary Dynamic Nozzle Shift (DNS) system allows the detection of web wander and performs real-time calculations and adjustments to print position based on the movement.



Without Dynamic Nozzle Shift



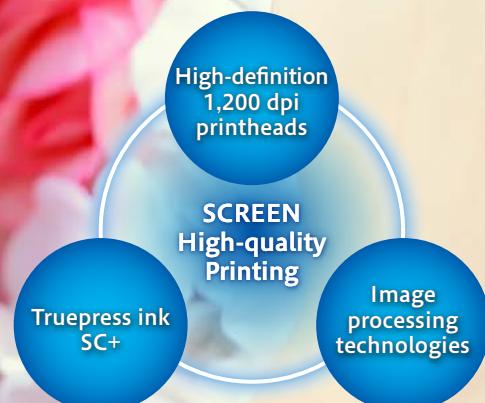
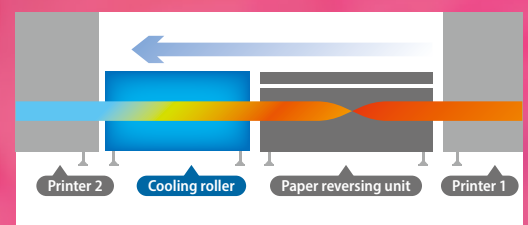
With Dynamic Nozzle Shift

The images are representations only.

Reduced expansion/contraction of paper

Cooling roller

Expansion and contraction of paper is a major cause of misregistration. Truepress JET 520HD systems do not over-dry substrates and are equipped with chill-rollers that significantly reduce changes in paper dimensions when printing two sided.





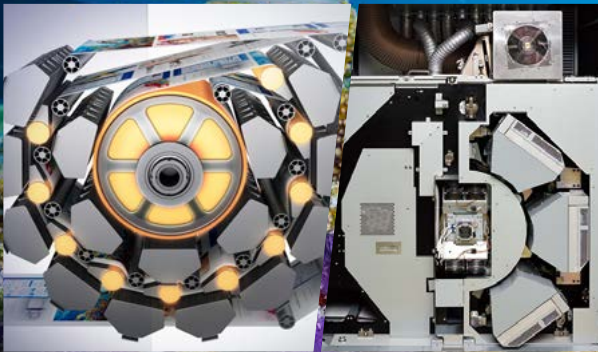
SUPERIOR PRODUCTIVITY AND RELIABILITY

Powerful drying system

The Truepress JET 520HD series features SC+ inks, designed to provide rich color across a wide range of coated papers, and a powerful drying system with the capacity to support thick and thin substrates.

An optimized combination of drying technologies including an NIR (near infrared) constant temperature dryer, heated rollers and air heating units can be implemented to suit many paper types and production environments.

The Truepress JET 520HD AD combines a constant temperature dryer with an array of small diameter heated rollers to deliver the best drying performance of any system in the series.

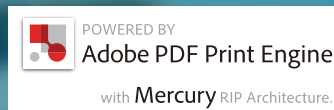


High speed and reliability

EQUIOS

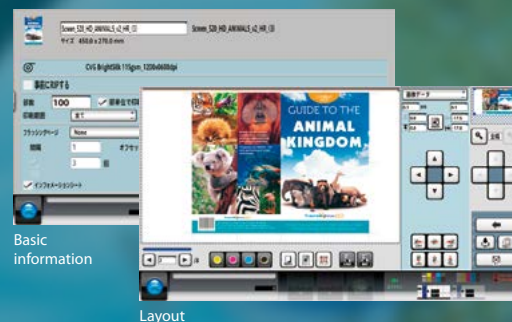
Fast RIP with advanced graphics processing

EQUIOS is a solution platform that draws on our extensive prepress and printing knowledge to further enhance the superb speed and quality offered by Truepress JET 520HD systems. Its RIP core incorporates Adobe's PDF Print Engine, supporting native processing of PDFs as well as rapid processing of variable data.



Simplified operation

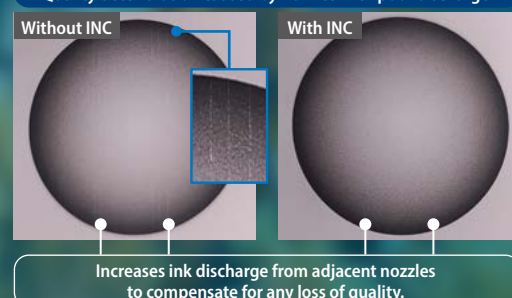
The entire sequence of operations from job registration to printing can all be entered and checked from the onboard touch screen. This includes registration operations as well as print adjustments and other settings. The touch panel control helps to maximize both work efficiency and uptime.



Intelligent nozzle control (INC)

This new function uses adjacent nozzles to compensate for any loss of quality caused by nozzles with poor discharge. It enables high-quality output to continue with minimal downtime and integrates maintenance work into production schedules, noticeably improving operating rates.

Quality deterioration caused by nozzles with poor discharge



Easy maintenance

The Truepress JET 520HD series uses a pull-out type printhead module, allowing daily maintenance to be performed with minimum effort. In the unlikely event a problem does occur, support staff can handle the situation more quickly, helping to maintain high operating ratios.



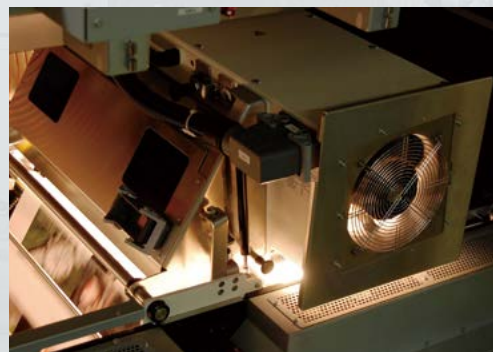
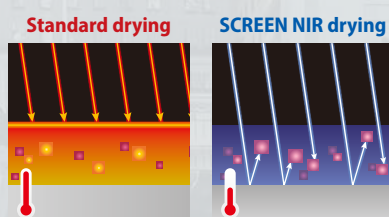


TRUEPRESS JET 520HD SERIES COMPARISON OF SPECIFICATIONS

Model		Truepress JET 520HD	
Print Speed (Standard uncoated, IJ treated uncoated papers)	50 m/m (1,200 × 1,200 dpi)		●
	75 m/m (1,200 × 600 dpi)		●
	100 m/m (1,200 × 600 dpi)		○
	120 m/m (600 × 600 dpi)		●
	150 m/m (600 × 600 dpi)		○*
Print Speed (IJ treated coated papers)	50 m/m (1,200 × 1,200 dpi)		●
	75 m/m (1,200 × 600 dpi)		●
	100 m/m (1,200 × 600 dpi)		×
	120 m/m (600 × 600 dpi)		×
	150 m/m (600 × 600 dpi)		×
Print Speed (Standard coated papers with no IJ treatment)	50 m/m (1,200 × 1,200 dpi)		●
	75 m/m (1,200 × 600 dpi)		×
	100 m/m (1,200 × 600 dpi)		×
	120 m/m (600 × 600 dpi)		×
	150 m/m (600 × 600 dpi)		×
Drying system	Air heating + heat drum		●
	Air heating + heat drum + additional dryer (NIR)		
	Advanced Dryer unit		
Dimensions (printer section only)		4,070 × 2,370 × 2,200 mm (160.3" × 93.4" × 86.7")	
Weight		Approx. 4,120 kg (Approx. 9,064 lb)	
Power requirements		Printer Controller: Three phase 200 to 240 V, 30 A / 380 to 415 V, 20 A Heater: Three phase 200 to 240 V, 110 A / 380 to 415 V, 55 A Controller PC: Single phase 100 to 240 V, 2 A	

► High-efficiency NIR drying technology

The two main advantages of NIR (near infrared) drying are its high speed and excellent heat conduction efficiency. Compared to standard infrared, NIR delivers higher heat energy that quickly and uniformly dries the interior of the ink. It also reduces damage to the paper in comparison to other drying technologies that conduct heat by warming the paper surface.



Additional drying unit (option)

● = standard functions and configuration ○ = charged options

Truepress JET 520HD+

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4,070 × 2,370 × 2,400 mm (160.3" × 93.4" × 94.5")

Approx. 4,162 kg (Approx. 9,156 lb)

Printer

Controller: Three phase 200 to 240 V, 30 A / 380 to 415 V, 20 A

Heater: Three phase 200 to 240 V, 110 A / 380 to 415 V, 55 A

Controller PC: Single phase 100 to 240 V, 2 A

Additional dryer (NIR): Three phase 180 to 220 V, 110 A / 380 to 480 V, 50 A
(A separate 400 V step-up transformer is required when using 200 V facilities.)

Truepress JET 520HD AD

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4,290 × 2,370 × 2,360 mm (168.9" × 93.4" × 93.0")

Approx. 4,680 kg (Approx. 10,296 lb)

Printer

Heater & controller: Three phase 200 to 240 V, 120 A / 380 to 415 V, 75 A

Heater: Three phase 200 to 240 V, 130 A / 380 to 415 V, 80 A

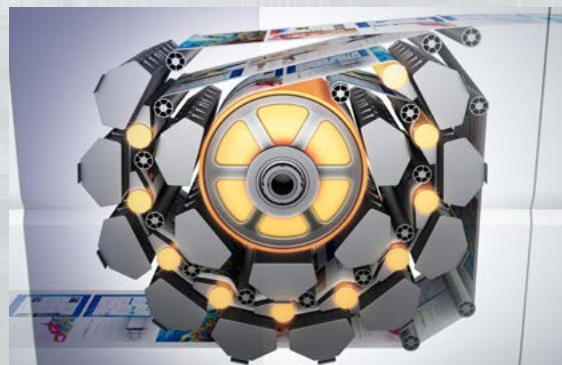
Controller PC: Single phase 100 to 240 V, 2 A

* The 150 m/m printing speed can be used with paper that is between 64 - 157 gsm

► New Advanced Dryer unit

The new Advanced Dryer unit uses a combination of large and small diameter heated rollers plus a constant temperature dryer. The unit features a "long pass" design that performs drying while circulating the paper around its interior. This mechanism is both compact and extremely efficient.

The small diameter heated rollers maintain paper tension while repeatedly applying heat, creating an ironing effect. This helps to eliminate the cockling (wrinkles in paper) that can be caused by ineffective drying.



Truepress JET 520HD series specifications

Printing system	Inkjet, Piezo single-pass DOD
Controller	EQUIOS: PS, PDF, PDF/VT (standard) IPDS Controller: AFP/IPDS (optional)
Inks	Truepress ink SC (CMYK), Truepress ink SC+ (CMYK)
Resolution	Max. 1,200 × 1,200 dpi
Printing speed	Max. 150 m (492')/min. (with option)*
Printing width	150 to 508 mm (6" to 20")
Media width	165 to 520 mm (6.5" to 20.4")
Media thickness	40 to 250 gsm (up to 157 gsm at a speed of 150 m/min.)*
Operating environment	Temperature: 18 to 24°C (64.4 to 75.2°F) (no sudden temperature changes) Humidity: 40 to 60% (no condensation)

* Under SCREEN conditions



TRUST Network Service

Solving Client Problems Is Our Core Mission

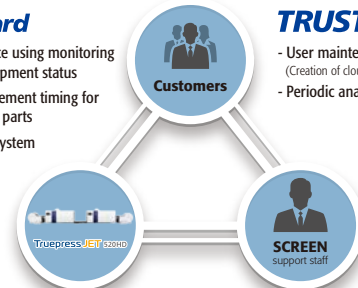
The Internet of things (IoT) is attracting growing attention as development continues in areas such as Industry 4.0 in the manufacturing sector and self-driving vehicles in the automotive field. The IoT connects many types of objects to a network, allowing the accumulation of vast quantities of data, known as big data. However, it is important to interpret this information so it holds value from a client's perspective and represents knowhow that can be used to solve problems.

At SCREEN, our goal is to integrate our practical expertise as a comprehensive manufacturer of graphic arts equipment with the dramatic opportunities for connectivity provided by the IoT. Harnessing the knowledge available from the big data generated by current equipment and services will enable us to create new products and solutions that will support the continuing success of our clients.

Contact your local SCREEN representative for detailed information on TRUST Network Service.

TRUST Guard

- Proactive maintenance using monitoring and diagnosis of equipment status
- Assessment of replacement timing for periodic replacement parts
- Provision of regular system analysis reports



TRUST Dialog

- User maintenance support (Creation of cloud-based client pages)
- Periodic analysis reports

TRUST Assist

- Remote maintenance (Handling of software, parameter setting, operation errors)
- Analysis of problems, recovery (Remote diagnosis of hardware)

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