

SCREEN



CREATING A FUTURE
IN PRINT

Truepress Jet520 HD Series

High-definition inkjet printing
on offset stocks



EQUIOS
ART & UX

Printed by the Truepress Jet520HD+ / SC inks

Truepress Jet520HD Series

Supremely reliable performance
that redefines printing standards



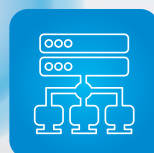
The Truepress Jet520HD series delivers outstanding expressive power rivaling offset printing. This includes the speed and reliability to easily handle high-volume needs. It also offers the type of flexibility only available with digital printing, enabling a completely new level of added value. All systems always perform at their maximum potential thanks to an advanced workflow platform.

These systems are the future of print on demand production. Their unshakeable capabilities are challenging established practices, and giving our customers the chance to win and continue winning.

Precision printhead assembly,
fully adjustable drying mechanism



Wide color gamut inks,
exceptional color management



Innovative and highly adaptable
workflow solution platform

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 Jet520HD systems achieve high-quality, offset-like reproduction on the wide variety of stocks required by this challenging market, including heavy weight offset coated and uncoated fine stocks. The flexibility to print on thicknesses ranging from 40 to 250 gsm enables the production of catalogues, posters, POP displays and a diverse range of other applications essential for commercial printing.



Transactional printing, direct mail

A new range of applications is now possible thanks to support for a wide variety of coated and uncoated stocks. High-speed RIPing enables high-volume production at image resolutions up to 1,200 dpi. The series also features our original secure workflow solution, which uses an integrated camera inspection system to ensure accurate and reliable printing.

Other applications

The Truepress Jet520HD series incorporates a wealth of core technologies, such as its wide paper compatibility, excellent print quality, automated workflow, and cutting-edge imposition and color management functions. These strengths make it ideal for on-demand printing of manuals, maps, timetables and many other applications.



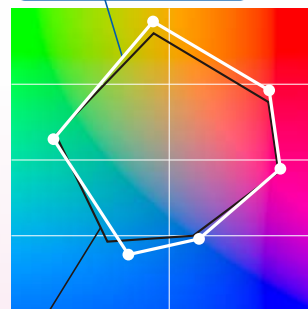
RICH COLOR EXPRESSION

Truepress *ink* SC for Truepress Jet520HD

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 both high density and high-speed drying, enabling the formation of sharp, well defined dots with no bleeding. They allow the Truepress Jet520HD series to create rich, vibrant color tones that are compatible with offset printing.

Truepress ink SC (4 colors)



Standard offset printing

Wide gamut inks

Unique Truepress ink SC features vivid CMYK primary colors and fast drying characteristics that eliminate bleeding and support the reproduction of a wide color gamut. These high value added inks are the result of our dedication over many years to developing inkjet presses and our expertise in ink characteristics, screening and color management, unique head control systems and more.

With their superb color gamut, SC inks maximize the exceptional quality of the Truepress Jet520HD series and open up a wide range of new possibilities for inkjet printing. Take advantage of this winning combination to help grow your business.



Vivid color reproduction

Ink volume optimization technology

The Truepress Jet520HD series features a color management system that is optimized for SC inks. It enables both vivid color expression and close control of overall ink volume.

CMYK values for digital data

| | |
|---------|------|
| Cyan | 91% |
| Magenta | 73% |
| Yellow | 64% |
| Black | 52% |
| Total | 280% |



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



Color matching technologies

Spot color editor function

This function lets operators select a spot color from a list of presets and print out a patch chart. After checking this chart, they can choose the patch that most closely matches the on-screen target and register it as a profile for the spot color (simulated color). For subsequent printing, this data will be selected automatically and when the spot color is included in input data, its registered profile color will be automatically applied.



Profile management

Profiles are linked to print conditions (paper, resolution), enabling unified control. This frees operators from color management tasks and allows them to focus exclusively on output requirements. A manual editor is also provided as a standard feature for adjusting profiles if colors need to be fine-tuned.

Correction technology for reducing printhead load

Correction of density variations

Individual differences or deterioration of inkjet printheads can cause density variations in the sub-scanning direction (parallel to the heads). Truepress Jet520HD systems are equipped with built-in scanner and color management technologies that uniformly correct any unevenness. Correction levels are calculated using average values from print results, helping to eliminate variations and ensure rapid adjustment.

Compared to waveform (voltage) type adjustments, this correction method is less likely to affect the life span of inkjet printheads. Overall, it is a more flexible technology and reduces the load placed on hardware.

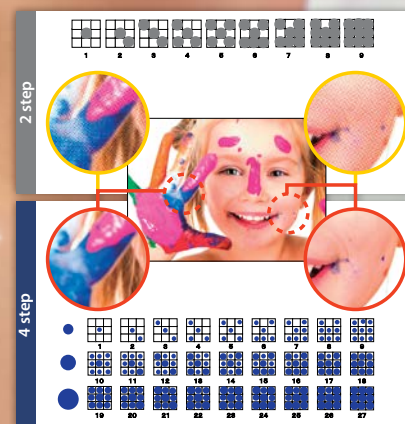


PRECISE, HIGH-DEFINITION PRINTING

Featuring high-resolution 1,200 dpi printheads

All Truepress Jet520HD 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 middletones as well as extremely small text and fine lines.

Each system also features a unique design that supports rapid, highly stable paper transport, plus proprietary AI-based control technologies for ink discharge. Industry-leading registration accuracy likewise maximizes the vibrant color expression possible with inkjet systems.



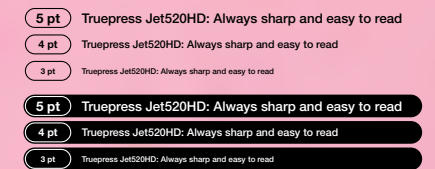
Maximum resolution of 1,200 dpi

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 middletones, 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.

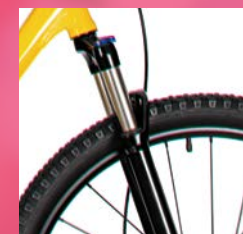


Significantly lower paper meandering

Highly responsive paper transport technologies

Truepress Jet520HD 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) transport.

Any paper meandering not absorbed by the transport system is corrected using software to ensure high registration accuracy during printing. Our independently developed Dynamic Nozzle Shift (DNS) mechanism incorporates technologies that allow it to predict the meandering characteristics of specific paper types. It uses this ability to make real-time calculations and adjust the print position based on the predicted meandering.



Without Dynamic Nozzle Shift



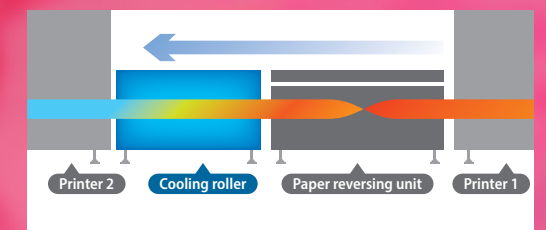
With Dynamic Nozzle Shift

The images are representations only.

Reduced expansion/ contraction of paper

Cooling roller

Expansion and contraction of paper is a major cause of deteriorated registration accuracy on the same level as paper meandering and skewing. Truepress Jet520HD systems are equipped with a cooling roller that significantly reduces these changes in paper dimensions for the duplex configuration. The roller also helps to keep the inside of the equipment at an appropriate temperature.





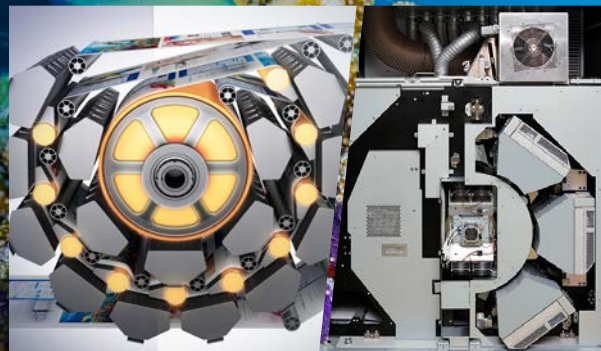
SUPERIOR PRODUCTIVITY AND RELIABILITY

Powerful drying system

The Truepress Jet520HD series features SC inks, designed to provide rich expression across a wide color gamut on coated papers, and a powerful drying system with the capacity to support many different paper types.

An optimized combination of drying mechanisms including an NIR (near infrared) constant temperature dryer, heated rollers and air heating units can be created to suit any paper types and production environment.

The newly released Truepress Jet520HD AD combines a constant temperature dryer with small diameter heated rollers to deliver the best drying performance of any system in the series.

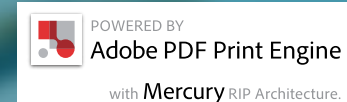


High speed and reliability



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 Jet520HD 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 touch panel. This includes advance registration of paper information and fine adjustments to settings. Touch panel control helps to maximize both on-site work efficiency and uptime.



Easy maintenance

The Truepress Jet520HD 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.



TRUST Network Service

Network support

When using the Internet of Things (IoT) and big data analysis, the most important factor is to have the expertise to deeply understand the background to the issues affecting each customer and convert any collected data into information that has value from the customer's perspective. This information must then be used to effectively resolve actual problems.

To expand the knowledge we have acquired over many years working on the frontline in prepress and print operations, we are now connecting directly to equipment via the IoT to gather operational data about our systems and services. This data is also being converted into knowledge and used to build a structure and service organization that will support the continuing success of our customers.



TRUEPRESS JET520HD SERIES COMPARISON OF SPECIFICATIONS

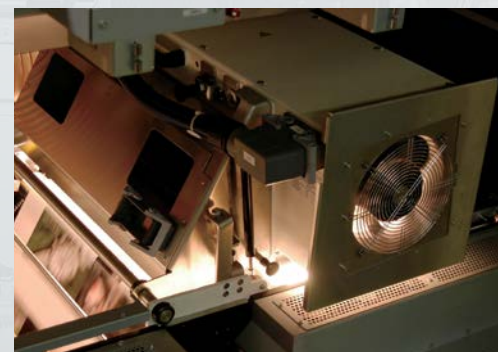
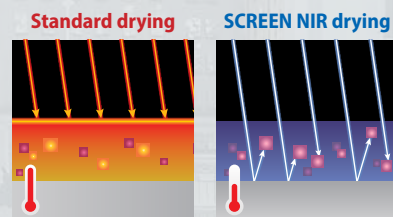
● = standard functions and configuration ○ = charged options

| Model | | Truepress Jet520 HD | Truepress Jet520 HD+ | Truepress Jet520 HD AD |
|----------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------|
| 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") | 4,070 × 2,370 × 2,400 mm (160.3" × 93.4" × 94.5") | 4,070 × 2,370 × 2,360 mm (160.3" × 93.4" × 93.0") |
| Weight | | Approx. 4,050 kg (Approx. 8,910 lb) | Approx. 4,120 kg (Approx. 9,064 lb) | Approx. 4,470 kg (Approx. 9,834 lb) |
| Power requirements | | Printer | Printer | Printer |
| | | Controller: Three phase 200 to 240 V, 30 A / 380 to 415 V, 20 A | Controller: Three phase 200 to 240 V, 30 A / 380 to 415 V, 20 A | Heater & controller: Three phase 200 to 240 V, 120 A / 380 to 415 V, 75 A |
| | | Heater: Three phase 200 to 240 V, 110 A / 380 to 415 V, 55 A | Heater: Three phase 200 to 240 V, 110 A / 380 to 415 V, 55 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 | Controller PC: Single phase 100 to 240 V, 2 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.) | | |

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

► 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)

► 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 Jet520HD series specifications

| | |
|-----------------------|----------------------------------------------------------------------------------------------------------------------|
| Printing system | Inkjet, Piezo single-pass DOD |
| Controller | EQUIOS: PS, PDE, PDF/VT (standard) IPDS Controller: AFP/IPDS (optional) |
| Inks | Truepress ink SC for Truepress Jet520HD CMYK (standard) |
| 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



A full after-sales service network ensures more reliable system operation, helping to build a stronger production base and greater peace of mind for customers.

Real-time maintenance minimizes down time

TRUST Network Service

TRUST Network Service is a proprietary support program provided by SCREEN to prevent unexpected problems. This program offers a full menu of services including predictive diagnosis based on monitoring of equipment conditions, as well as regular analytical and maintenance reports. If trouble does occur, it is also able to precisely identify the area of malfunction.

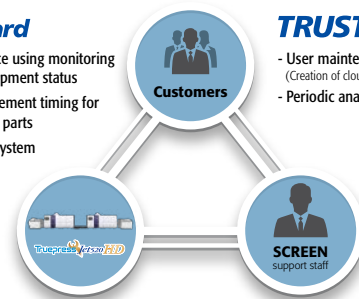
Contact your local SCREEN representative for detailed information on TRUST Network Service.

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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