SCREEN

Truepress Jet520 NX

Full-Color Variable Printing System

Next generation with Xross-over

EQUIOS
ART & UX

Optimal Responsiveness for Mixed and Small Lot Production

The Truepress Jet520 series boasts one of the most successful lineups in its class.
It has earned this impressive track record since 2006 based on
a combination of our proven technical expertise
as a manufacturer of graphic arts equipment and "made in Japan" product reliability.
We have continued to develop this winning concept in pursuit of
optimal responsiveness for mixed and small lot production.
The result is the Truepress Jet520NX.
This new system delivers an array of functions designed to
answer the needs of printing companies seeking to build cutting-edge businesses.

Truepress Jet520 NX

Five features
supporting
the Truepress Jet520NX's
responsiveness

Quick startup
Based on user demand, the startup time has been improved so it is 30% faster than the original Truepress Jet520, minimizing downtime for operators.

High-speed RIP and transfer processing
Adobe PDF Print Engine, cache processing, on the fly RIP and continuous job queuing all help to eliminate bottlenecks and increase operating ratios.

Effective use of idle time
The printheads can be cleaned while the paper is being changed over.

Easy maintenance
A head retraction mechanism allows press maintenance without re-webbing the press.

Test printing mode
Time and paper losses can be reduced while checking print quality.

Outstanding responsiveness rewrites standard practices to deliver even greater productivity

Conventional processes	RIP 1 h	Print check 0.2 h	Printing 1.5 h	Paper change 0.3 h	Printhead cleaning 0.2 h

Truepress Jet520 NX

RIP 1 h		Paper change 0.3 h	Test RIP ⑤
Print check 0.2 h	Printing 1.5 h	Printhead cleaning 0.2 h	

① ② ③ ④

❶ High-speed RIP and transfer processing
On the fly RIP and continuous job queuing enable parallel RIP and print processing.

❷ Test printing mode
A test printing function eliminates losses during quality checks.

❸ Quick startup
A faster startup time significantly reduces waiting times.

❹ Effective use of idle time
Paper changeover and head cleaning can be performed at the same time.

❺ Job simulation
Test simulations can be run using software, helping to maximize operating times for the whole system (option).
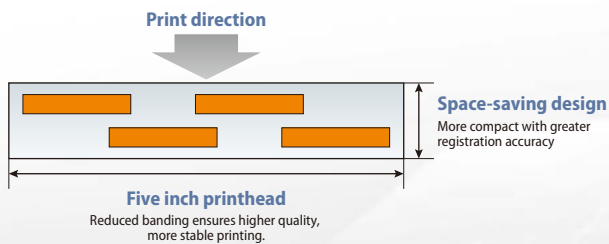
eXtreme

Unrivaled quality and power drive the transaction printing market

Five inch printhead module

The Truepress Jet520NX features a class-leading five inch printhead module. Even at a maximum print speed of 150 meters per minute in full color, this module is able to prevent banding, ensuring highly stable quality levels that are unprecedented for a roll-fed printing system.
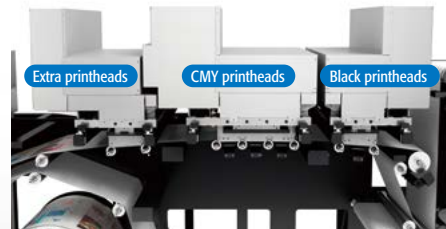
The gap between printheads has also been cut to just one-eighth of earlier SCREEN systems, providing higher quality, more stable printing.

With its larger printhead module, the Truepress Jet520NX can deliver more speed when it is needed while also providing the flexibility to pursue higher quality in demanding jobs. More flexibility means more ability to take on work from a wider range of fields.

Print direction

Five inch printhead
Reduced banding ensures higher quality, more stable printing.

Space-saving design
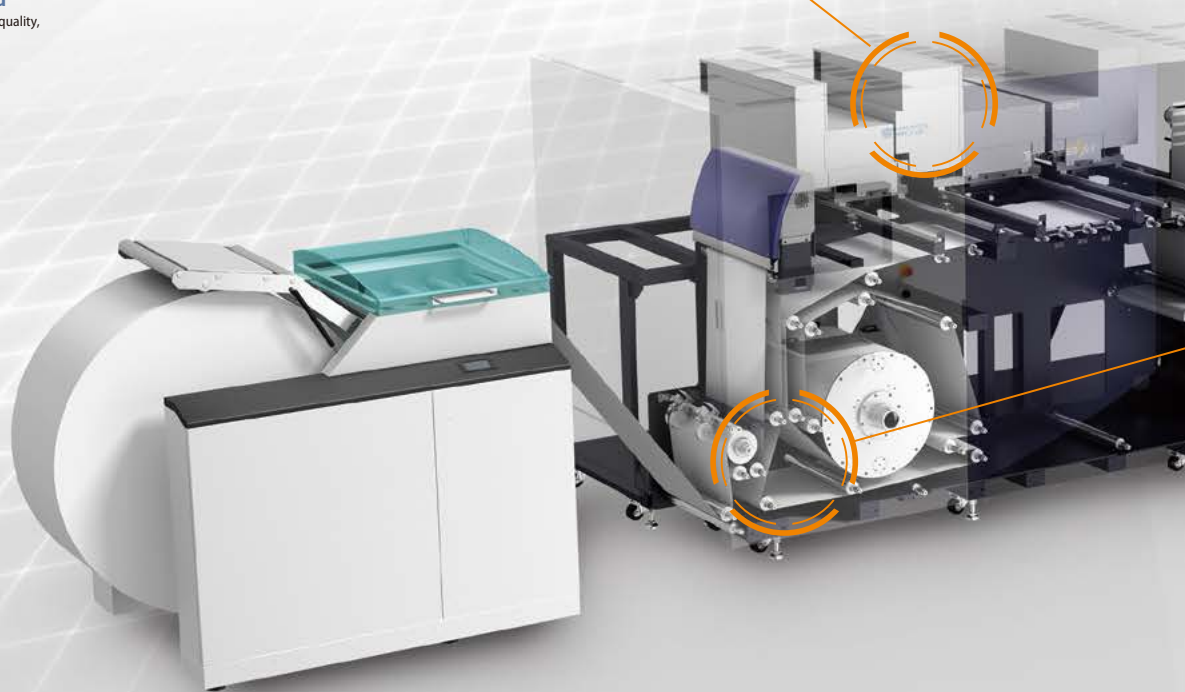More compact with greater registration accuracy

Proprietary printhead construction

The Truepress Jet520NX features a unique printhead design that efficiently handles both monochrome and full color printing. Only the printheads required for each set of job specifications are used, significantly reducing ink consumption and extending the life of the heads.

Extra printheads | CMY printheads | Black printheads

Extra printheads (factory option) can also be installed to handle MICR and other functional inks. With these optional heads, jobs that previously relied on overprinting can now be output in a single pass.
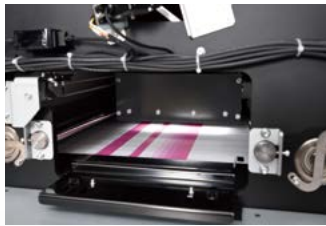

eXpandable

Outstanding compatibility with a wide range of applications

1 Highly proven and reliable CMYK inks
All inks offer excellent weather and abrasion resistance and are not prone to bleeding.

2 Flexible handling of light to heavy papers
A function automatically adjusts printhead heights based on paper thickness to ensure the optimum print gap, resulting in the highest quality regardless of paper weight.

3 Precise printing of micro characters and ruled lines
Even extremely small characters and thin lines can be reproduced with incredible accuracy. The final appearance shows virtually no bleeding or jaggies.

4 Versatile imposition and linking with postprocessing
The most suitable imposition for any application can easily be performed, along with smooth linking to postprocessing.

5 Functional inks for added value
Both MICR and invisible inks are fully supported. These inks enable the creation of products with a new level of added value that was not previously possible with high-speed inkjet systems. *Factory option*

Watermark printed by UV visible ink

UV light

Quality control using built-in scanner

Density difference between printheads is often cited as a problem when using presses with multiple heads. The Truepress Jet520NX features built-in quality control scanners that perform regular checks and automatically adjust uniformity. After correction, the information is registered as an individual paper profile.

Easy operation

Printing job instructions, log management and all the different printing settings can be performed from the Truepress Jet520NX's user-friendly touch panel. The simple interface was specifically designed to make operating the Truepress Jet520NX effortless and efficient.
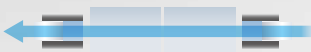
FleXible

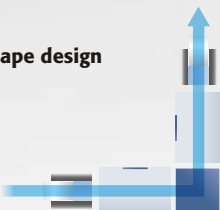## Innovative design concept enables highly flexible smart operation

Various machine layout options

The Truepress Jet520NX features a footprint that is very close to earlier Truepress Jet520 models. The system is also equipped with an open interface that allows it to link smoothly with a wide variety of postpress systems, including folding and cutting machines. It has never been easier to construct an optimized production environment.
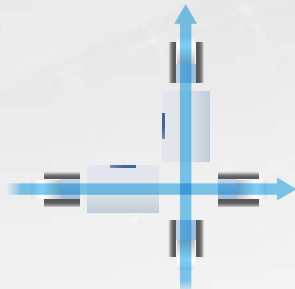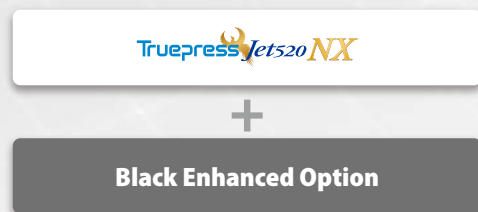
I-shape design

Dual simplex configuration

L-shape design

Series-leading, high-speed throughput of 180 m/min

Black Enhanced, a high-speed monochrome option, enables the Truepress Jet520NX to achieve series-leading speeds of up to 180 meters per minute. This option ensures outstanding productivity when performing monochrome printing.

Truepress Jet520 NX

+

Black Enhanced Option

Comparison of speeds

	Monochrome (600 × 600 dpi)	Color
Truepress Jet520NX	150 m (492')/min	
Truepress Jet520NX with Black Enhanced Option	180 m (590.4')/min	150 m (492')/min

EQUIOS: Advanced workflow solution platform

EQUIOS ART & UX

EQUIOS is a universal workflow system that draws on SCREEN's extensive prepress and printing knowledge to maximize the performance of our cutting-edge inkjet technology. EQUIOS offers high-speed processing using Adobe's PDF Print Engine and Mercury RIP Architecture, a newly developed color management system that links to paper information, and user-friendly imposition functions that integrate SCREEN's full prepress knowhow.

These features have been developed based on SCREEN's wealth of experience and encompass the full range of our professional knowledge. Together they help to provide an outstanding work environment regardless of the operator's own skill level.

Ultra-fast RIP'ing of high-volume data

For roll-fed printing, the rendering speed of output data is an important factor that affects the operating ratio of the printing system in various ways. EQUIOS's smart variable data processing function minimizes the load placed on RIP processing by rendering the requirements for shared sections on each page once and then caching them for reuse. Even with high-volume variable data and high-resolution images, print quality can be maintained without any loss of productivity.

POWERED BY
Adobe PDF Print Engine
with **Mercury** RIP Architecture.

The Mercury RIP Architecture is a scalability framework and distributed multi-tier cache technology developed by Abode for its PDF Print Engine. Mercury enables enhanced, high-performance rendering and is essential for digital presses as well as variable printing.

Proprietary high-definition screening

The Truepress Jet520NX utilizes SCREEN's proprietary screening technology, enabling optimal display of gradations in images from highlights and shadows through to middletones. This system also minimizes moire and broken lines to produce high-definition output.

Continuous optimization of ink usage volumes

The Truepress Jet520NX is also equipped with SCREEN's independently developed ink amount control function, which combines advanced color management and head control technologies. This function reduces surplus ink that can delay drying and cause peeling and transfer of ink. It also significantly improves the reproduction of shadow areas, a process that was often difficult with previous inkjet printers.

Automatic selection of optimum color profile

The EQUIOS color management system allows input data from RGB, CMYK and various other color spaces to be easily matched to color standards such as JapanColor. It then automatically selects the appropriate ICC profile according to the paper type and output device. Thanks to EQUIOS, specialized skills are not required to achieve professional results.
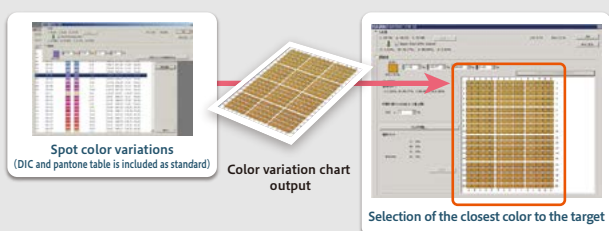
Optimized imposition using preloaded templates

To enable efficient postpress of applications such as invoices or direct mail printed on roll paper, it is essential to perform the appropriate type of imposition for each situation. EQUIOS is preloaded with a variety of standard imposition templates specifically for processing of roll paper. These templates greatly simplify the handling of any job.
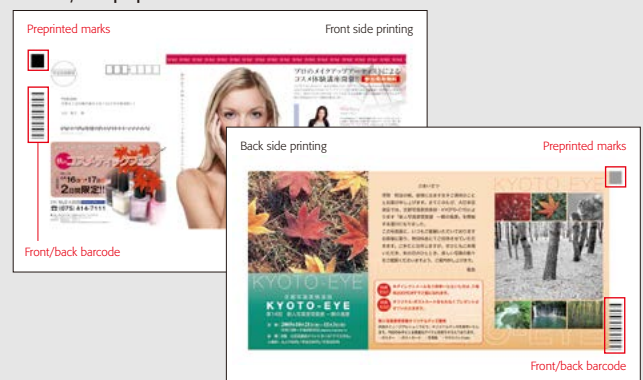
EQUIOS also makes it easy to set the control marks and barcodes required for postpress during digital printing. These features eliminate many of the challenges of creating imposition layouts.

Spot color editor (ICC profile editing function)

This editor allows spot colors to be selected from a spot color list and printed as a patch before adjustment. Once a chart has been printed, the desired approximate color can be selected on the monitor, synchronized with the chart and registered as a spot color (proxy color) profile. This data is automatically selected in subsequent jobs and any spot colors included in input data can be processed as the registered colors.

■ Front/back preprinted marks and barcode marks

Preprinted marks

Front side printing

Back side printing

Preprinted marks

Front/back barcode

Front/back barcode

Spot color variations
(DIC and pantone table is included as standard)

Color variation chart output

Selection of the closest color to the target

Comprehensive inspection solution ensures outstanding reliability for all printed materials

JetInspection

As print quality has continued to increase, calls for improved detection capabilities have also grown. The Truepress Jet520NX is preloaded with JetInspection, software that is capable of performing highly comprehensive real-time inspection of high-quality variable images across all pages, in addition to providing conventional processing of OCR fonts and decoding of barcodes.

As well as significantly reducing cost and time requirements, JetInspection supports the development of new printing applications.

Secure workflow for transaction printing

When using PDF/VT data in transaction printing, the preview images created during RIP processing and print result images captured via camera can be compared and inspected in real time. This feature supports the construction of a secure inline workflow that is able to precisely and reliably reproduce data including highly confidential personal information.

Original built-in design

The Truepress Jet520NX is equipped with JetInspection, its own specially designed, dedicated inspection system. JetInspection can be controlled directly from the operation panel of the Truepress Jet520NX.

Even during printing, the operator is alerted by a warning light if any defects are detected and images of the defects and their positions can be checked in real-time via the operation panel and network. It is also possible to automatically create files for defect image data and link to postpress using printouts and CSV files.

Superior defect detection function

Inspection is highly detailed. It is possible to detect everything from OCR fonts, decoded barcodes and missing dots to foreign substances, color variations and improperly output text.

Operators can also register printing data and the base color of the paper in advance. This helps prevent false positives and improves the accuracy of defect detection.

Integration with conventional processing

When performing conventional overprinting, if the printing data is first captured via camera and preregistered, it can also be used during inspection of the overprinting. This allows the advance detection and specification of various problems that often escaped conventional inspection, including marking and inclusion of foreign particles in the paper of the initial printing.

Secure workflow linked with EQUIOS

Linking with EQUIOS maximizes the performance of the Truepress Jet520NX and helps to achieve more consistent, accurate and worry-free production. It also enables inspection logs to be shared with EQUIOS.

Inspection records including defect information, OCR text and the results of decoding barcodes are sent back to EQUIOS, where they can be saved as logs.

αStream IPDS Controller

SCREEN now offers a fully-integrated native IPDS controller, co-developed with cross-media marketing specialist TagG Informatique. The reliable IPDS workflow and EQUIOS workflow that are based on Adobe PDF Print Engine can be used on the same platform, thus the user can flexibly switch between optimized flows according to their jobs.

SCREEN ✕ TAGG informatique

Smart Print Manufacturing

SCREEN has partnered with Solimar to offer Smart Print Manufacturing through integration of SOLitrack with the EQUIOS workflow. SOLitrack provides live visibility of all jobs and status of equipment including ink/media usage. It also offers preference-based alerts, dynamic reporting, enterprise print management and other intelligent functions.

EQUIOS delivers proven, highly reliable RIP processing, automation of predefined workflows and flexible automation with postpress equipment. The combination of both systems enables an ideal workflow environment for any customer.

SCREEN ✕ SOLIMAR SYSTEMS

Truepress Jet520NX specifications

	Truepress Jet520NX
Printing method	Single pass inkjet, drop on demand piezo
Controller (requires selection)	EQUIOS: PS, PDF, PDF/VT IPDS controller: AFP/IPDS
RIP	EQUIOS
Ink	Truepress inks
Resolution	600 x 450 dpi, 600 x 600 dpi, 600 x 900 dpi
Printing speed	Max. 150 m (492')/min*
Printing width	165 to 520 mm (6.5" to 20.4")
Black Enhanced high-speed monochrome option	180 m (590.4')/min (600 x 600 dpi)
Paper width	165 to 520 mm (6.5" to 20.4")
Paper thickness	40 to 250 gsm*
Dimensions (W x D x H)	3,240 x 1,860 x 1,981 mm (127.6" x 73.3" x 78.0") (height includes padding of 10 mm)
Weight	Approx. 2,830 kg (6,226 lb) (including extra printheads)
Power requirements	Printer Controller: Three phase 200 to 240 V, 31.4 A / 380 to 415 V, 16.5 A Heater: Three phase 200 to 240 V, 95 A / 380 to 415 V, 50 A Controller PC: Single phase 100 to 240 V, 2 A EQUIOS: Single phase 200 to 240 V, 30 A Ink supply unit: Single phase 200 to 240 V, 5 A
Operating environment	Temperature: 18 to 24°C (64.4 to 75.2°F) (no sudden temperature changes) Humidity: 40 to 60% (no condensation)

Some conditions apply.

JetInspection specifications (option)

Barcode reading function	2D barcode: QR, Data Matrix, PDF417 (black 100%) Placement angle: 0, 90, 180, 270 degrees Background: white (The necessary blank area around each code is based on the quiet zone of the code concerned.)
Log	Acquired through the user interface
Decode results	Saves all results and outputs them as a CSV file
Power requirements	PC: Single phase 200 to 240 V AC, 15 A x 1 (installed in the rack for EQUIOS) Camera: 24 V DC, 600 W (supplied from printer)

Full after-sales service network ensures more reliable system operation, helping to build a stronger production base and greater peace of mind for customers
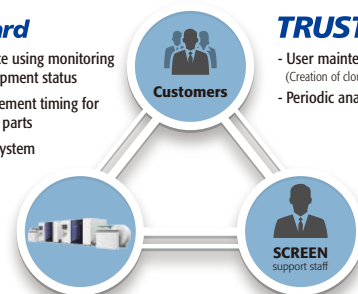
Real-time maintenance minimizes down time

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

Customers

SCREEN support staff

TRUST Network Service
The Truepress Jet520NX is covered by the Network support program.

SCREEN Graphic Solutions Co., Ltd.

The QR code on the right can be used to check whether this brochure is the latest version.

We reserve the right to alter product design and specifications without prior notice.

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Printed by the Truepress Jet520HD+ / SC inks