

SCREEN



CREATING A FUTURE
IN PRINT

Truepress JET 520NX AD

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

A New Era in Printing!



Truepress ink NP

NEW



EQUIOS
ART & UX

Full Variable Output with Industry-leading Production Times

The Truepress JET 520 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.

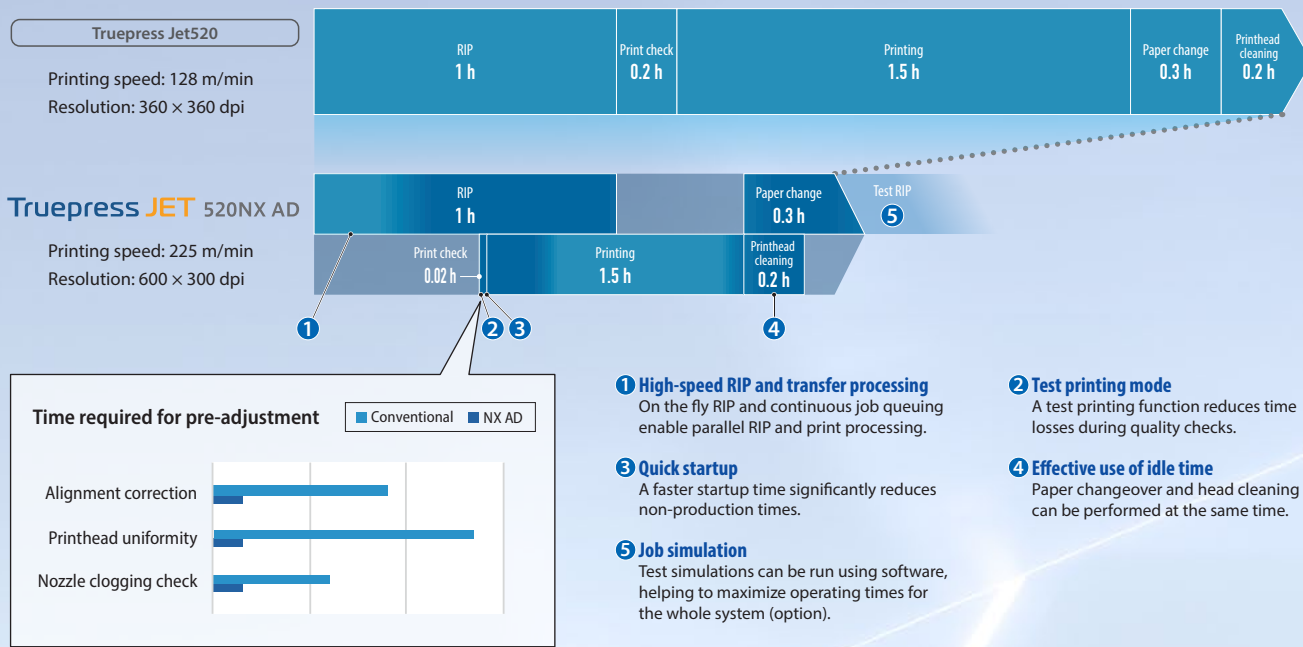
We have continued to develop this winning concept in pursuit of optimal responsiveness for fully variable mixed and small lot production.

The result is the Truepress JET 520NX AD.

This dynamic new system delivers next-generation solutions for your printing business today.

Truepress JET 520NX AD

Efficient and optimized start procedures deliver greater productivity



Six features supporting the Truepress JET 520NX AD's responsiveness



Unrivalled speed and productivity

Ultra-fast mode enables output at up to 225 meters per minute.



Quick startup

Improved Start-up time – now 30% faster than the original Truepress Jet 520 – gets you printing faster.



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 rolls are being changed.



Easy maintenance

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



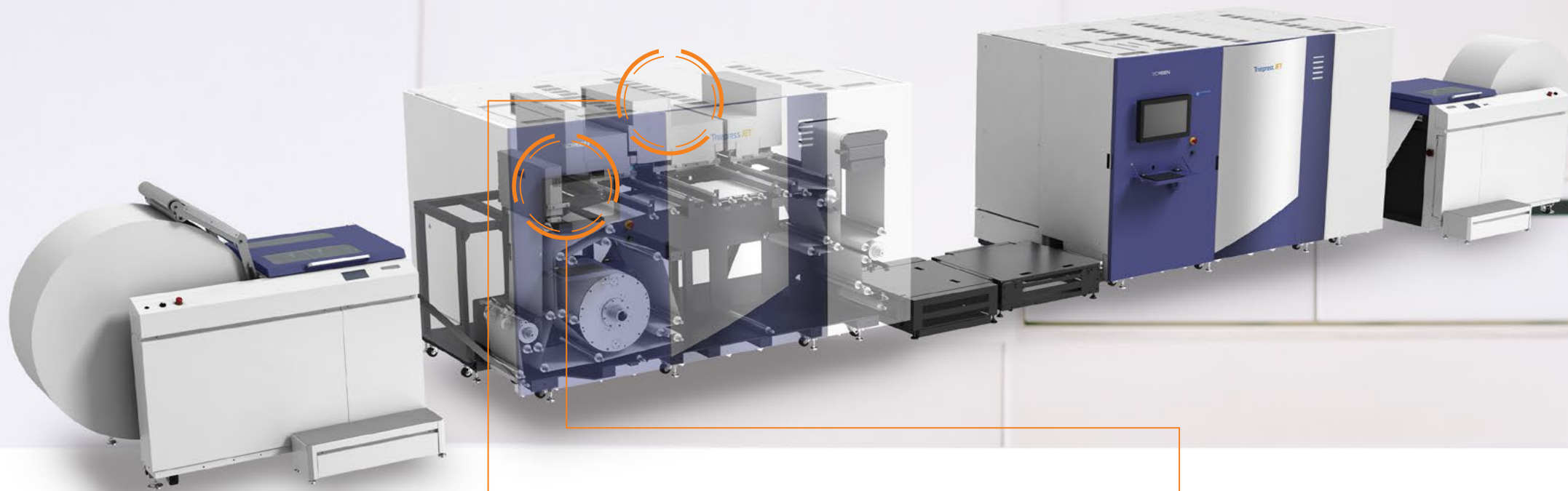
Test printing mode

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



eXtreme

Unrivaed quality and power drive the direct mail and transactional printing markets

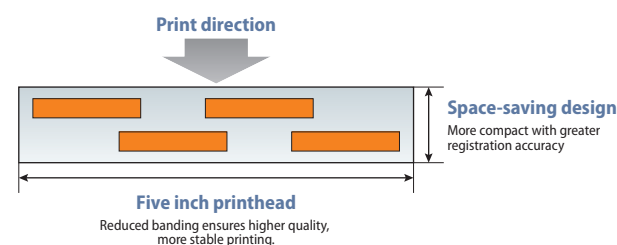


Five inch printhead modules deliver superior quality

The Truepress JET 520NX AD features a class-leading five inch printhead module. Even at a maximum print speed of 225 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.

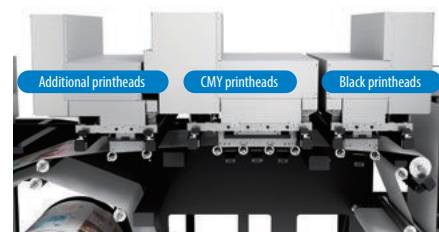
The gap between printheads has also been cut to just one-eighth of earlier SCREEN systems, providing higher quality, more stable printing.

With its larger printhead module, the Truepress JET 520NX AD 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.



Proprietary printhead construction ensures outstanding reliability

The Truepress JET 520NX AD 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.



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

New pigment ink 'Truepress ink NP'

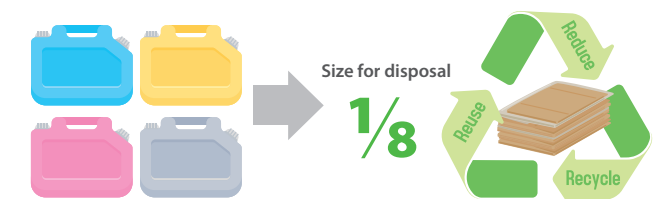
Our newly developed pigment inks provide greatly improved black density and more vibrant images. They also offer excellent weather and abrasion resistance with minimal bleeding.

JetInspection: Proprietary, built-in scanning system

JetInspection scans materials as they are being output to catch issues such as paper marking and low print quality. Its nozzle checker and automatic cleaning functions also minimize head errors, while its intelligent nozzle control (INC) improves print quality and uptimes.

Less waste

Bag-in-box type containers for easy disposal and highly recyclable are applied to NP ink and conventional pigment ink. Compared to our polyethylene tanks, they cut the space required for disposal by over 85%, contributing to environmental conservation.



The above is an example of disposal in accordance with Japanese waste disposal regulations.

eXpandable

Outstanding compatibility with a wide range of applications

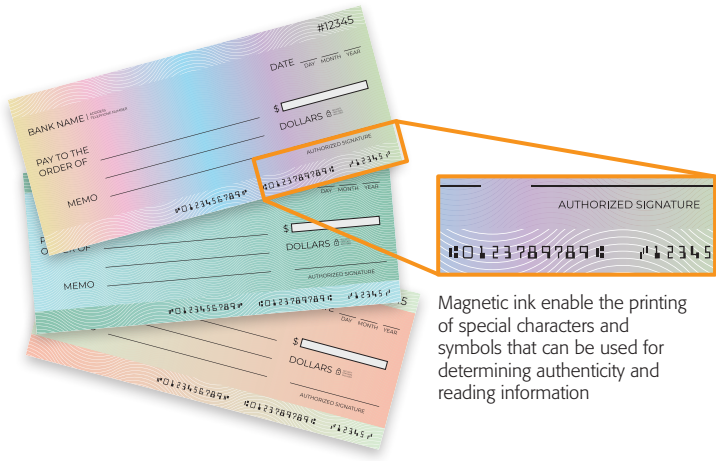


flexible

Innovative design concept enables highly flexible smart operation



- 1 Flexible handling of light to heavy papers**
Automatic printhead height adjustment ensures optimum print gap, producing the highest quality regardless of paper weight.
- 2 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.
- 3 Functional inks for added value**
Magnetic (MICR)* ink is fully supported. This ink enables the creation of products with a new level of added value that was not previously possible with high-speed inkjet systems. **Factory option*



Magnetic ink enable the printing of special characters and symbols that can be used for determining authenticity and reading information

Stream 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.

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.

Optimized print modes for every job

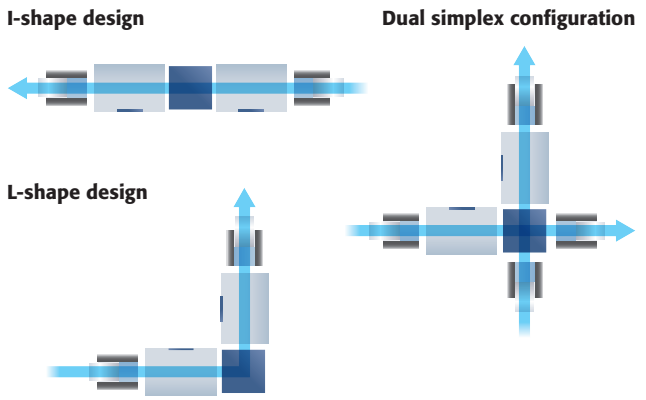
A variety of print modes are available in addition to standard mode (120 m/min, 150 m/min), including high-quality color (80 m/min), high-speed color (180 m/min) and industry-leading ultra-fast color (225 m/min). It is easy to select the optimal mode for any type of work from transaction to book and catalog printing.

High-quality color	80 m/min (600 × 900 dpi)*
Black enhanced (high-speed monochrome option)	180 m/min (600 × 600 dpi) monochrome printing*
High-speed color (Option)	180 m/min (600 × 400 dpi)*
Ultra-fast color (option)	225 m/min (600 × 300 dpi)

** Subject to ink and paper type restrictions*

Various machine layout options

The Truepress JET 520NX AD features a footprint that is very close to earlier Truepress JET 520 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.



Comprehensive inspection solution ensures outstanding reliability for all printed materials

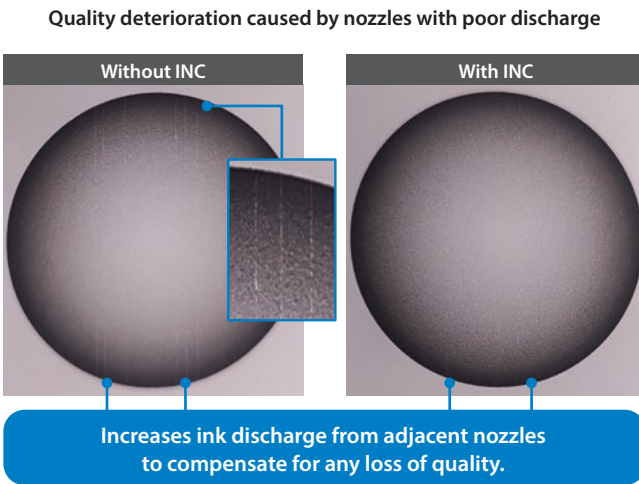
JetInspection

As print quality has continued to increase, calls for improved detection capabilities have also grown. The Truepress JET 520NX AD can be equipped with JetInspection, a high-spec inspection device. JetInspection 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.

Intelligent nozzle control (INC)

INC intelligently adjusts adjacent nozzles to compensate for any deterioration in image quality caused by nozzles with discharge errors. This function improves operating ratios by enabling continuous, high-quality printing with little downtime and maintenance work that is based around production schedules.

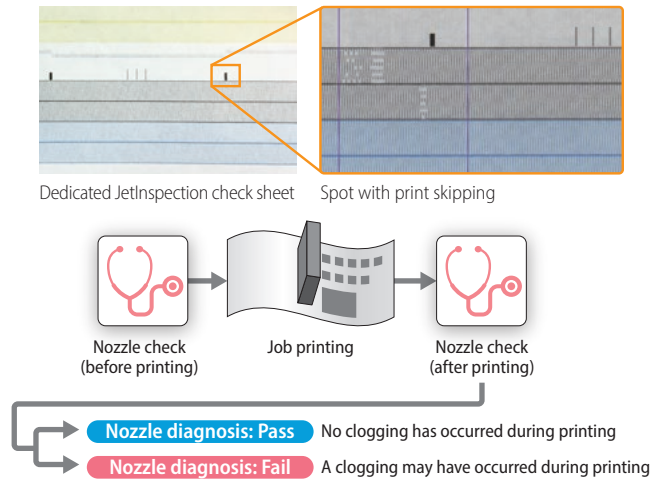


Secure workflow for transactional printing

When using PDF/VT data in transactional 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.

Nozzle checker and automatic cleaning

Special check sheets are inserted before, after and at regular intervals in jobs, enabling the nozzle status of all heads to be precisely monitored during printing. If an offline nozzle is found, cleaning is performed automatically. This helps to reduce head failures and stabilize print quality.



Secure workflow linked with EQUIOS

Linking with EQUIOS maximizes the performance of the Truepress JET 520NX AD 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.

Compact built-in design with advanced AI

JetInspection can be controlled directly from the operation panel of the Truepress JET 520NX AD. 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.

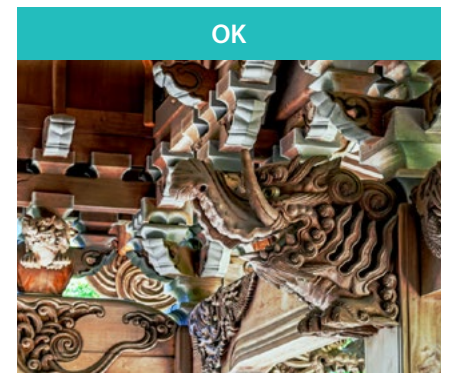
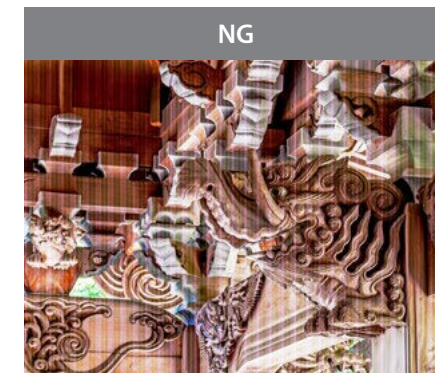
JetInspection also uses AI that enables it to precisely detect defects in real-time, supporting the production of top-quality printed materials. In addition, defect image data is automatically filed, printed out, and can be linked to postpress via CSV files.

The Truepress JET 520NX AD is equipped with our proprietary fully trained AI. To ensure the reliability of quality checks, its accuracy does not change during operation.

OCR&Decode, Detection function Option

JetInspection has OCR and barcode decoding functions. It also can detect various types of defects with high precision, such as missing dots, missing characters, paper stains, and foreign substances contamination.

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.



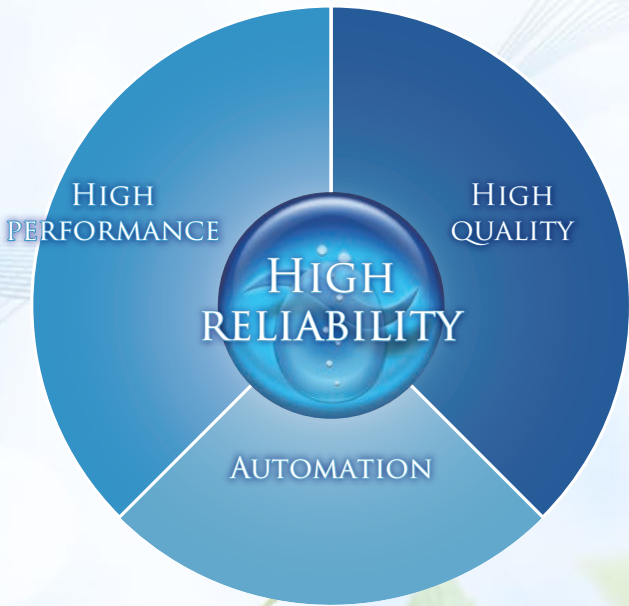
Integration with conventional processing Option

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 overlooked, including marking and inclusion of foreign particles in the paper of the initial printing.

EQUIOS: Advanced workflow solution platform



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

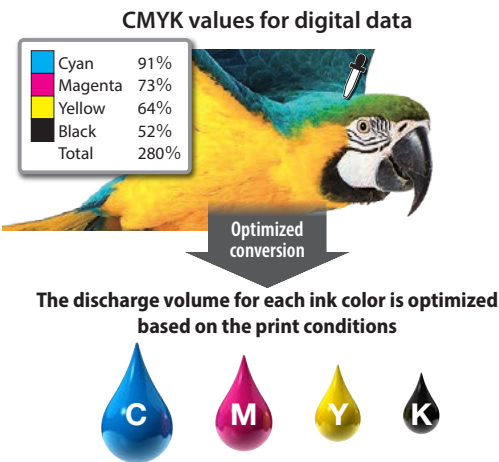
The Truepress JET 520NX AD utilizes SCREEN's proprietary screening technology, enabling optimal display of gradations in images from highlights and shadows through to middletones. This system also minimizes moire and broken lines to produce high-definition output.

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 target color. Thanks to EQUIOS, specialized skills are not required to achieve professional results.

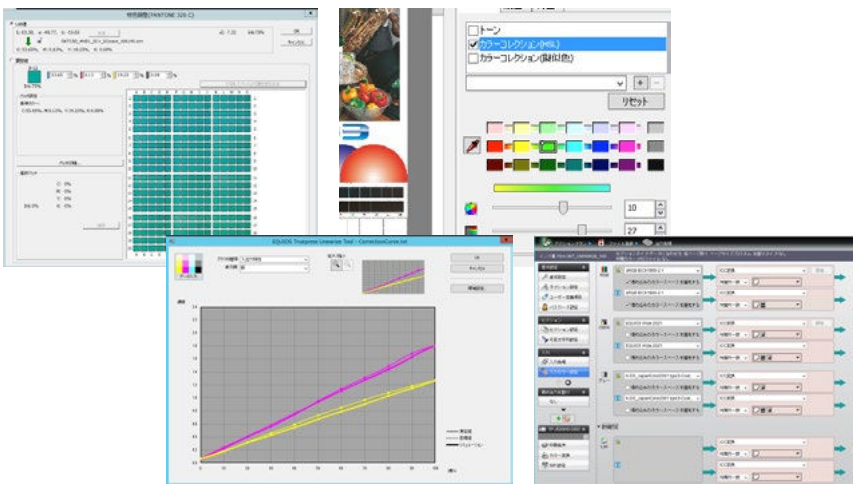
Advanced ink amount (AIA) control

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 520NX AD to achieve finely tuned ink control. This technology reproduces the full color gamut possible with Truepress inks, delivering extremely vivid color expression. Its precise control reduces over-application of inks and significantly improves the appearance of gradations in shadow areas.



Advanced color management tools

The Truepress JET 520NX AD 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.



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.



Truepress JET 520NX AD specifications

	Truepress JET 520NX AD
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 ink NP*
Resolution	600 x 900 dpi, 600 x 600 dpi 600 x 450 dpi, 600 x 400 dpi 600 x 300 dpi
Printing speed	Max. 225 m (590.4')/min** (with option)
Printing width	165 to 520 mm (6.5" to 20.4")
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)

* The same inks as for the Truepress JET 520NX can also be used.

** These values are based on in-house tests and depend on printing conditions, ink types, etc.

JetInspection specifications (option)

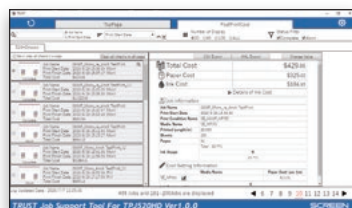
Barcode reading function	2D barcode: QR, Data Matrix, PDF417 (black 100%) Placement angle: 0, 90, 180, 270 degrees Background: white (The necessary blank area around each code is based on the quiet zone of the code concerned.)
Log	Acquired through the user interface
Decode results	Saves all results and 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)

Real-time maintenance minimizes down time

TRUST Network Service

Job support tools

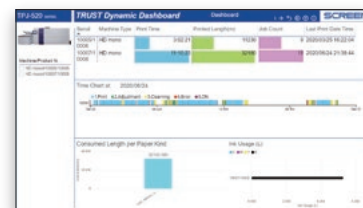
Usage statistics for ink, paper and other items make it possible to accurately calculate the cost of individual jobs. Job logs and consumption data can all be checked locally by users as required.



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, TRUST is able to identify the area of malfunction and alert the operator as well as log the instance for reporting purposes.

Dynamic Dashboard

The dashboard allows cloud-based monitoring of the operating status of Truepress JET 520NX AD presses. Usage of consumables such as inks and papers can be checked at a glance, while data for printing, head cleaning, adjustment and processing errors are all presented in time charts for instant understanding. These details make it easy to confirm systems are running at peak efficiency.



Please contact your local SCREEN representative for further information.

TRUST Network Service

The Truepress JET 520NX AD is covered by the Network support program.

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