

**SCREEN**

**POD**

Creating a Future in Print

**Truepress**  **Jet520ZZ**

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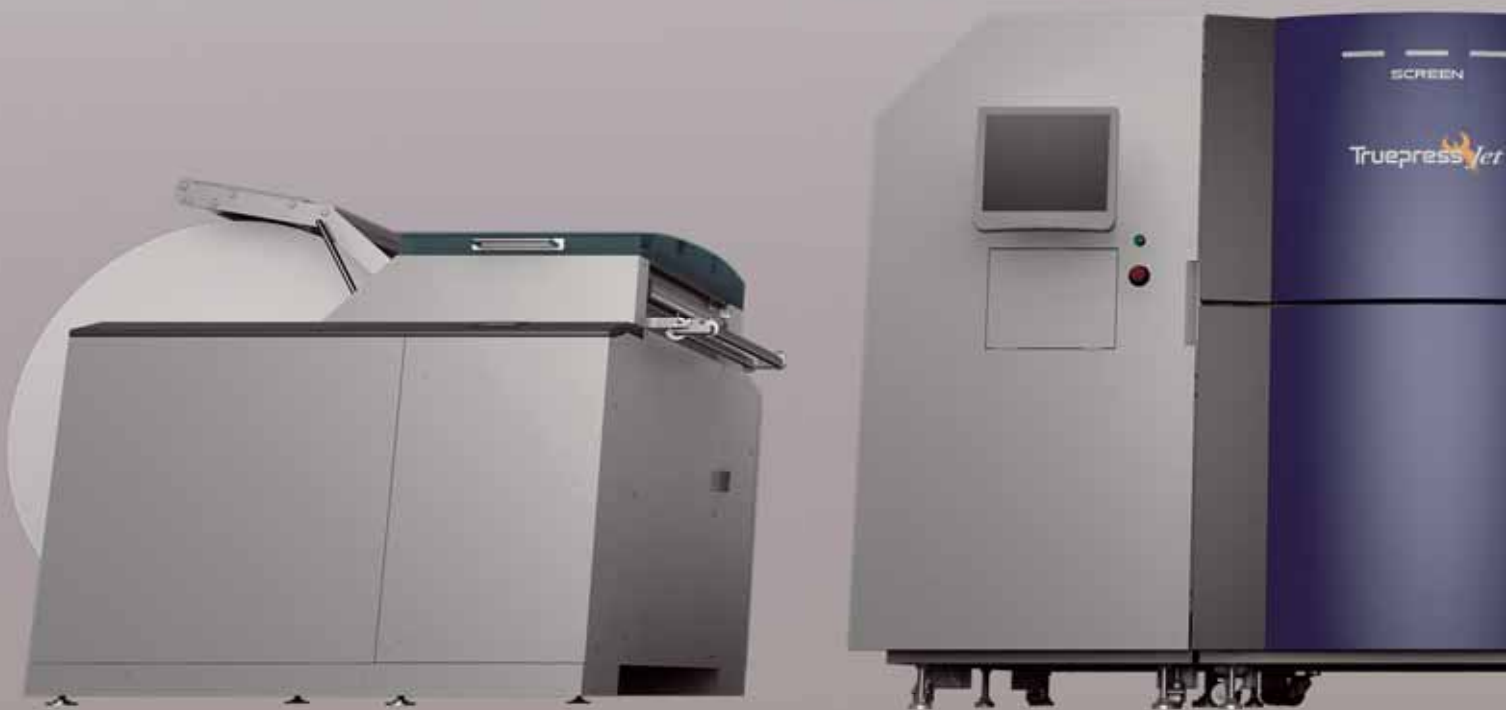
**Full-Color Variable Printing System**

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*Flagship model continues evolution  
New world-leading speed and quality*



# World-leading capabilities for your business



The business scene changes at incredible speed, accompanied by corresponding technological progress. These two factors influence each other and in the closely linked printing market, new solutions are constantly required.

The Truepress Jet520ZZ delivers the highest quality, speed, and accuracy of any high-speed inkjet printer in the world. It is a highly innovative system that incorporates a range of applications developed by capitalizing on these features.

The world-leading capabilities of the Truepress Jet520ZZ consign current solutions to the past and lead your business area to a new stage.



# Creating diverse applications for an innovative business style

The Truepress Jet520ZZ inherits the functions and usability of the Truepress Jet520 series, which have been successfully extended to a variety of printing applications, and further advances proprietary features. The system's quality and flexibility surpass the level of high-speed inkjet printers and introduce innovative solutions to the conventional POD (print on demand) business style.



## Direct mail

The Truepress Jet520ZZ is excellent for use in creating promotional tools. No longer mass-produced materials, direct mail can now provide individually tailored information, in full color. Better response can be expected.



## Invoices

Full-color information segmented according to an individual's gender, age, and occupation can now be added to credit card bills and other invoices, which have an extremely high opening rate.





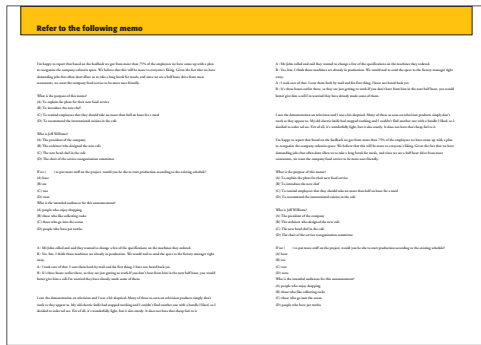
### On-demand books

High-quality books of any quantity, even small lots, can be printed with a short lead time. SCREEN offers high-quality book binding with excellent offset-quality printing.



### Product manuals

The Truepress Jet520ZZ is perfect for the production of product manuals with a heavy page volume and full-color pages, when only a limited number of prints are required. It also eliminates the need for expensive stock inventory of manuals that become out-dated.



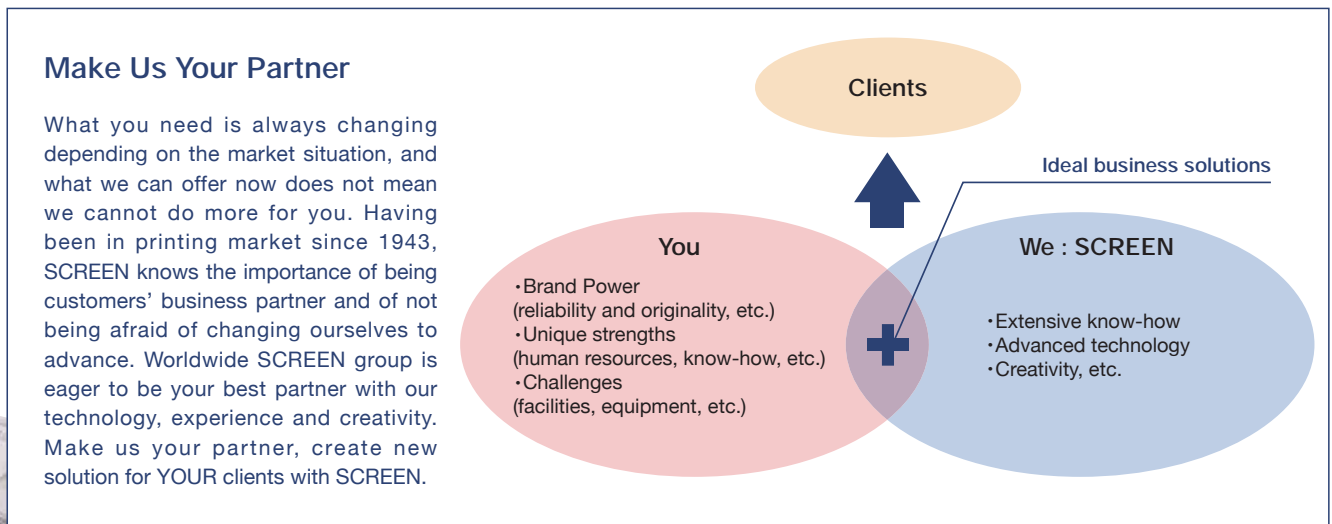
### Study materials

The Truepress Jet520ZZ can produce school study materials, such as practice questions, progress reports, and study guides, that are tailored to the needs of individual students, improving results in learning.



### Newspapers & free papers

Information on printed media, such as articles and advertisements can be regionally optimized and be printed in the necessary small lot sizes. This approach is attracting attention as a new newspaper business solution to replace uniform web printing.



# Delicate yet bold High-precision expressive capabilities approaching the level of offset printing

The Truepress Jet520ZZ offers high-quality expression even in areas that were previously difficult with high-speed inkjet printers, for example, with the subtle variations of natural landscapes and smooth curves of human contours. This makes it easy for high-impact visuals to create a lasting impression in the reader's memory, significantly enhancing the ability to create effective promotional tools.

The image displays a collage of printed materials demonstrating high-precision inkjet printing. On the left is the cover of 'Soccer League Communication' magazine, featuring a large soccer ball with national flags and a row of small soccer-themed figurines. In the center is a direct mail envelope addressed to 'Metred mail' with a 'Take Free' sticker and 'vol.77 Issue in August, 2011 [Quarterly]' text. On the right is a colorful advertisement for a 'Cosmetic experience course' with a 'Now open!' banner, featuring a woman's face, instructor photos, and course details. The background shows a blurred soccer field with players.

Application example  
Direct mail  
Pamphlet  
Newspapers  
Free papers

for 36 minutes by Currie in the area and acquires PK to  
k of Greece that centers on two tops of rice with Toff  
is though is afflicted, The [kuuza] rescheduling calmly  
his, and the even was overtaken in the first half,  
m and members are replaced when entering the latter

of the participation on the way, and reaches the goal. This goal  
became a winning point after all, Italy took down Greece, and the  
preliminary contest was exceeded.  
After it plays a game, supervisor [hokkaido-] in Greece :. [It has  
become cowardly a little immediately after beginning. However,

# Adoption of high-efficiency Piezo DOD head

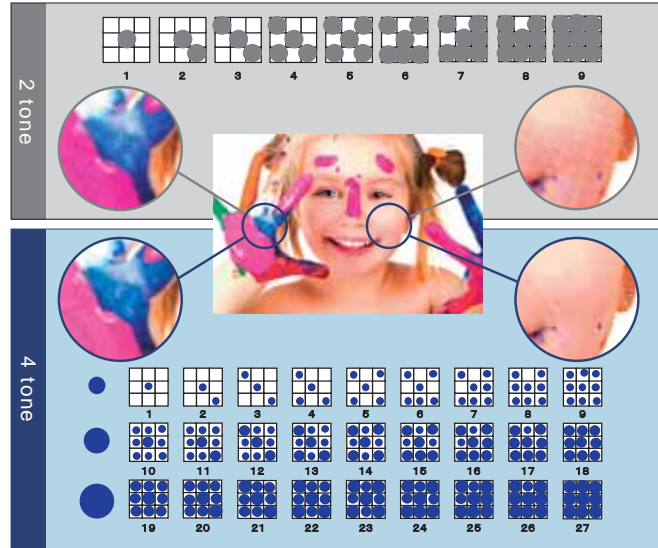
The Truepress Jet520ZZ features Piezo Drop on Demand (DOD) inkjet heads manufactured by Seiko Epson Corporation, which are well known for their reliability. The piezo elements in these inkjet heads change shape according to the voltage applied, enabling extremely fine control of the ink drops ejected from the head. This grayscale technology generates extremely smooth tones.

## Four tone printing provides smoother reproduction

Ultra-fine printing is possible with four tones per dot. Compared with the two tones common in standard high-speed inkjet printers, being able to use double the tones delivers cleaner, smoother printing.

## World's smallest droplets enable high-precision printing

The Truepress Jet520ZZ's three picoliter droplets are the smallest used by any high-speed inkjet printer in the world. The ability to print on various paper types, including on finely detailed areas, with a low ink volume enables high-quality printing.



## Selection of optimal inks to suit the application

A lineup including both water-based pigment and dye inks is available. The optimal ink type can be selected to suit the work details and conditions.

### Water-based pigment inks

Pigment inks provide outstanding water, heat, chemical, and light resistance, allowing long-term storage of documents. They also offer wide-ranging color reproduction and are suitable for various applications.

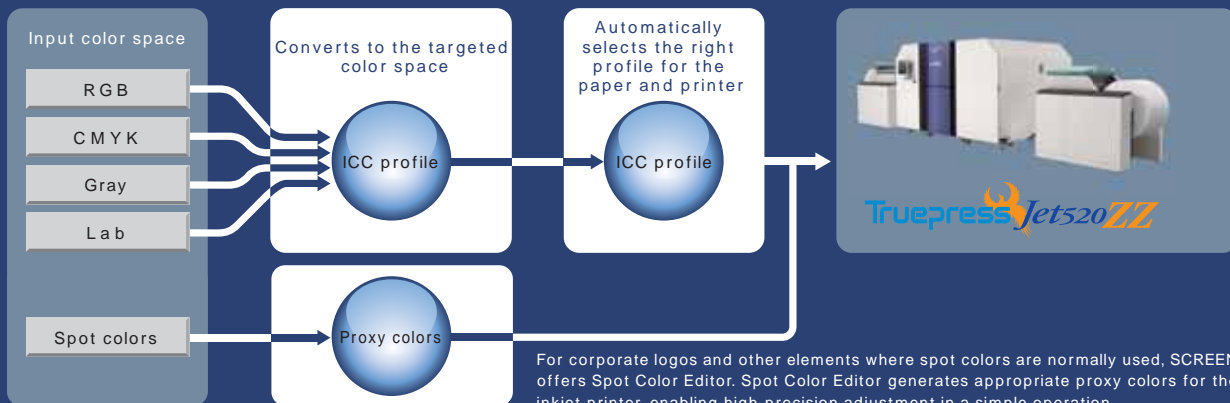
### Water-based dye inks

Dye inks offer vivid coloring, with particularly impressive display of intermediate colors. They are also effective for reducing operating costs.

## EQUIOS CMS

### Automatic selection of optimum profile Advanced color Management System

The EQUIOS Color Management System first converts all the elements in a job to the targeted color space, such as Euro Standard or Japan Color. It then automatically selects the appropriate ICC profile according to paper types and output devices. Thanks to the EQUIOS Color Management System, specialized skill is not required to get professional results.



# Reliable inspection technology that does not miss errors

Modern society is experiencing an increasing need to be able to conceal and verify both personal and product information, and this requires particularly high accuracy for printed materials. With the Truepress Jet520ZZ, an inspection unit is available as an option for inline installation. This unit conducts inspections for errors such as blemishes and reads barcode and OCR characters during actual printing. This ability minimizes the load placed on operators by visual inspections and makes a significant contribution to the reduction of processing time and costs.

The Truepress Jet520ZZ also uses roll paper, which is only cut into sections during final processing. This feature satisfies the requirement of the data printing business for the highest level of security.



### Application example

- Invoices
- Direct mail
- Notification, guidance materials

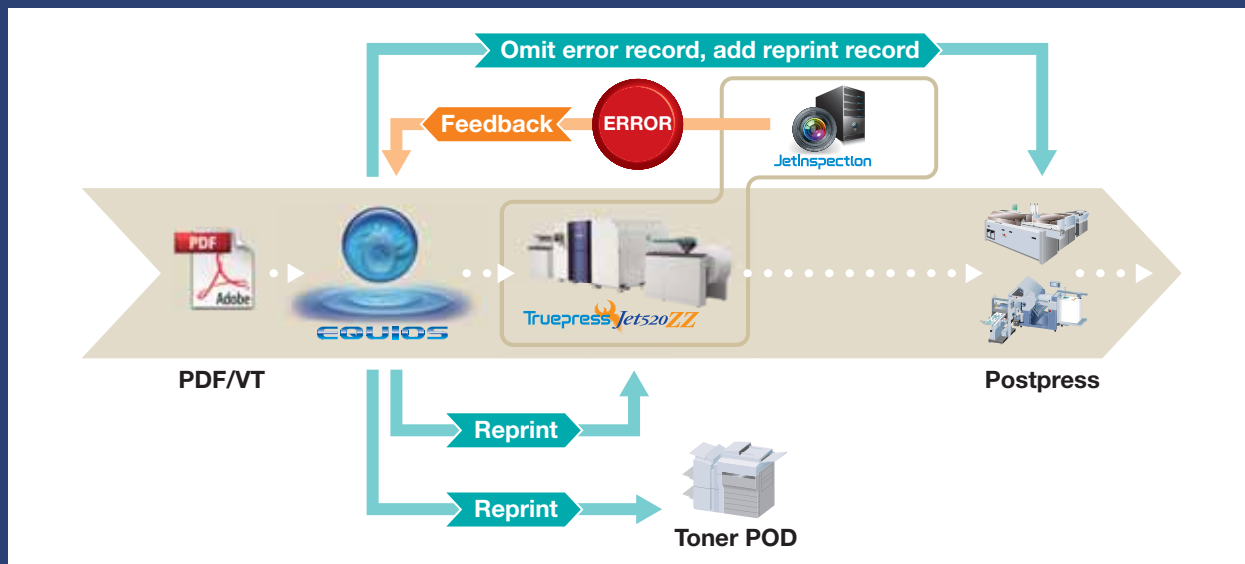
## JetInspection inline inspection system

### Secure workflow delivering constant accuracy

A high-speed camera that takes images of the printed media is built into the Truepress Jet520ZZ system. The images taken by the camera are compared in real-time with the images generated by the RIP, to check for defects. The entire print run can be inspected in this way. This enables the construction of a reliable inline workflow that faithfully reproduces printing data. Inspection system is initially used as a part of quality management, but since printer can never offer a whole set of variable printing proof to print buyers, those record is also meaningful for ad quantity assurance system for advertisers.

### Effective use of inspection results

Inspection record including defect information, OCR text, and the results of decoding barcodes is sent back to EQUIOS print management system and instruction can be sent back to the printer to initiate a reprint of defect pages. The inspection record can all be saved to a CSV file, which allows these details to be used for communicating defects to the postpress system. Before the media enters postpress processing, information is sent so the equipment's controller so that the defective pages can be rejected. Thanks to the linkages with postpress equipment, this makes it possible to construct an integrated workflow.



#### Superior defect detection function

Inspection is quite detailed. Everything from missing dots to foreign substances, color variations, and improperly output text can be detected. Defects are displayed in an inspection results screen, making it easy for operators to spot them.

#### Advance setup

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

#### Real-time checking of defect information

Detected defect images and positions can be checked in real-time even during printing, allowing rapid evaluation. Defect image data is automatically filed and can also be printed out if desired.



# Delivering previously unimaginable quality and accuracy

The Truepress Jet520ZZ defies conventional wisdom for high-speed inkjet printers and maintains consistently high quality and accuracy. Color processing, registration, positioning and various other functions required for printed materials are provided at a high level.

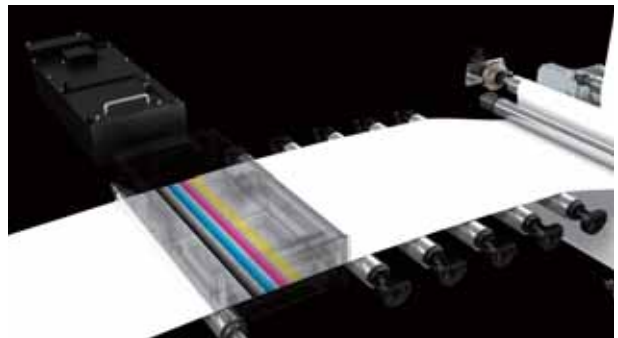
## Single-pass production for better printing and registration precision

The inkjet heads are mounted in SCREEN's unique single-pass multiple-head array, which enables extremely high printing precision. The distances between the inkjet printheads for each color, as well as the distances from the inkjet printheads to the media, are short, ensuring exceptional color-to-color registration.



## Automatic correction technology for managing print quality

The Truepress Jet520ZZ uses tens of fixed inkjet heads at once to print across an entire surface. Any differences in color between these multiple heads are corrected by shading technology. The entire surface of a printed document is read by a quality control scanner built into the printer and then analyzed by color management technology. After this, the color tone of each head is adjusted to a uniform value. In addition, printed materials are examined from a variety of angles to maintain consistent quality, for example, using a function to prevent the omission of dots during printing.

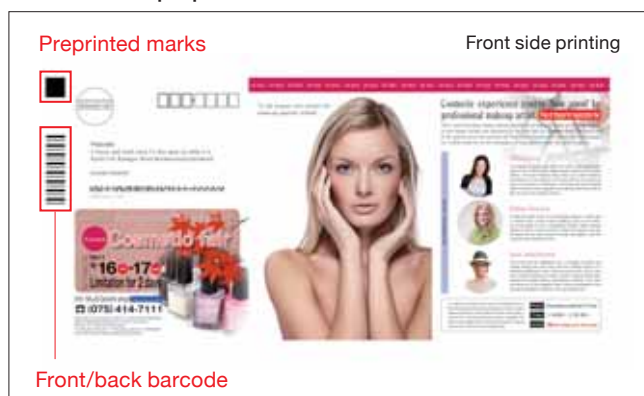


Inkjet heads and their output

## Positioning function for high registration accuracy

The system's many inkjet heads have been compactly arranged to minimize the transfer distance during the printing of CMYK colors. This protects the paper from the effects of expansion and contraction and enables high registration accuracy. In addition, to ensure print registration is maintained, printing can be carried out with the aid of preprinted registration marks, marginal punches, or registration marks created internally by the system for use as a reference. Related registration marks on the front and back sides of each sheet ensure front-to-back registration and accuracy. A sensor automatically monitors the paper feed, and if the paper starts to come out of proper alignment, it is also adjusted automatically to compensate.

### Front/back preprinted marks and barcode marks



# World-leading speed dominates the short turnaround business

The Truepress Jet520ZZ delivers an astounding maximum speed of 220 m (721.7') per minute for full color variable printing. The actual operation level of the overall system from the front end to the RIP, printer, inspection unit and pre- and post-press processing units is among the fastest in the world.

The short turnaround market is expected to become increasingly competitive in the future, and at the same time, the delivery of optimal information to individual users will become matter of course from a marketing point of view. High-speed and high-quality full color variable printing supports the provision of information that matches the requirements of this era.

## Application case

- Direct mail
- Free papers
- Invoices



### Trifold direct marketing postcard size

(300 x 145 mm [11.81" x 5.70"])

**2,200** postcards/min



### A4 size

(210 x 297 mm [8.26" x 11.69"])

**2,960** pages/min

with a Dual Engine Duplex System



### Tabloid size

(546 x 406.5 mm [21.48" x 16.00"])

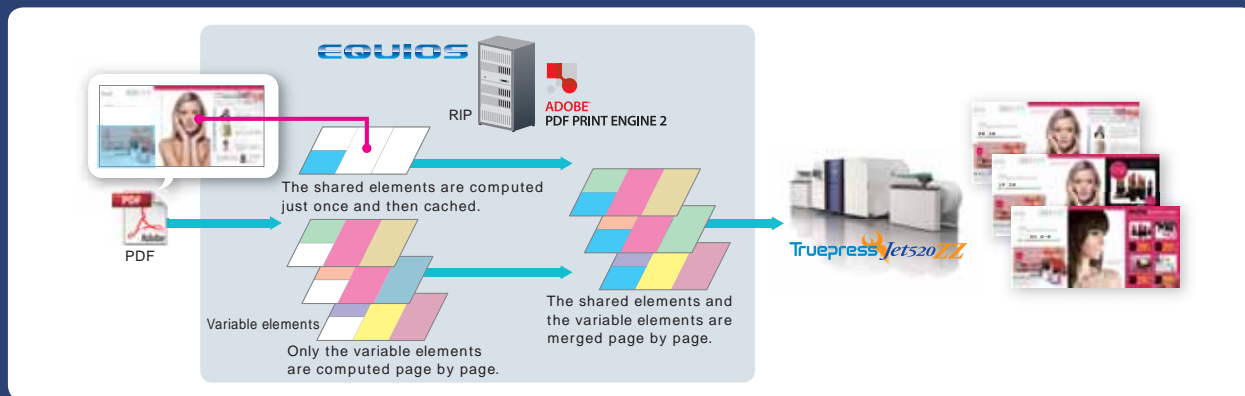
**1,600** pages/min

with a Dual Engine Duplex System

## Smart Variable Data Processing

### Minimizes the RIP processing load and delivers high productivity

The Truepress Jet520ZZ features a function that automatically recognizes re-usable elements and assigns them to a background layer. The background layer can be output repeatedly without re-RIPing. This significantly improves processing speeds for large volumes of variable data, since only the altered portion needs to be RIPed. Smart Variable Data Processing saves time and ensures the fastest possible output.

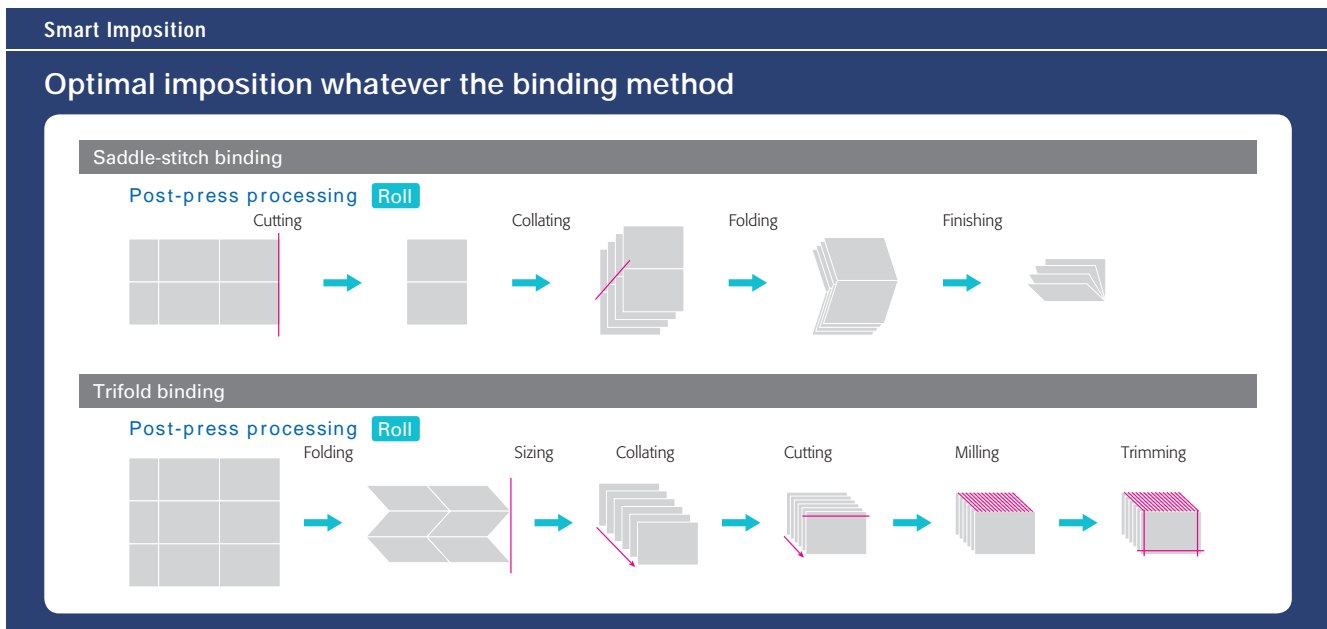


## Scalable Load Balancing

The Truepress Jet520ZZ ensures optimal performance by working with EQUIOS' scalable load balancing function. The configuring of large volumes of data requires high capacity and load balancing is performed internally to derive maximum performance from the overall system. A system configuration can also be constructed specifically to match the type of work carried out by a customer.

# On-demand, high-quality printing Unique workflow system that satisfies next-generation needs

Linked with EQUIOS, the Truepress Jet520ZZ is equipped to handle not only a multitude of impositions for book binding specifications including saddle stitching, and perfect binding from a single paper roll, but to also provide accurate and easy layout functions for accessory items such as the crop marks and barcodes required for post-press processing. It is a full support system for high-quality print production with rapid turnaround. The Truepress Jet520ZZ provides precision support for varied customer needs, such as on-demand book production, which has been attracting increasing attention in recent years.



Automatic output of various barcode types (Code 39, Code 128, ITF) is supported as an option.  
This problems with misordered or missing pages at binding

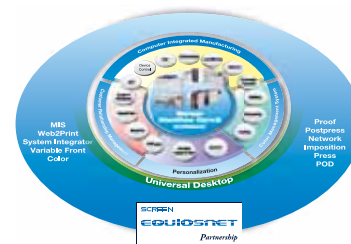
## Linked workflow EQUIOS leads the digital printing era

EQUIOS is a professional workflow system created based on SCREEN's extensive experience, which provides straightforward usage regardless of the operator's own experience and specialized skill. EQUIOS offers high-speed processing using the latest RIP core, practical and easy color management linked to paper information and simplified imposition based on in-depth prepress know-how.

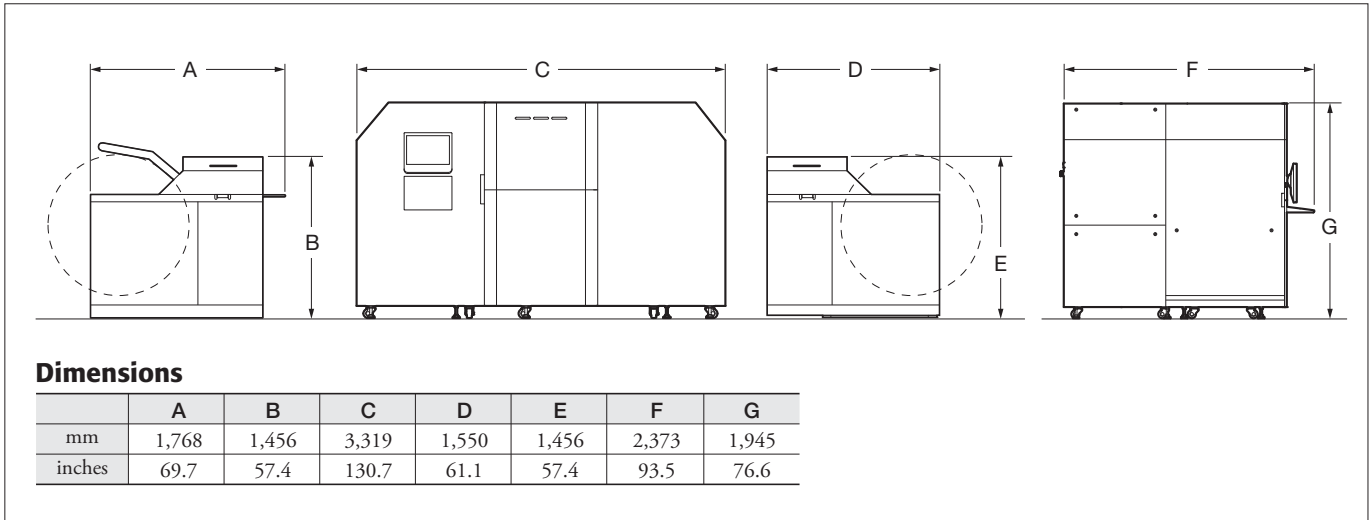


## EQUIOSNET Partnership Program

This program enables end-to-end automation covering all processes from data submission to final processing and customer delivery, which are dependent on collaborations with partner companies representing each processing field in the printing industry. SCREEN intends to provide customers with a succession of solutions that reduce errors and work load and enable the creation of a one-stop printing service.



## Space requirements



## Truepress Jet520ZZ specifications

Printing method	Piezo single-pass printing, four tones per drop
RIP	EQUIOS
Ink	Water-based pigment inks, water-based dye inks, four process colors (CMYK)
Resolution	Maximum 720 x 360 dpi
Printing speed	Maximum 220 m (721.7')/min
Printing width	150 to 502 mm (5.90" to 19.7")
Paper width	165 to 520 mm (6.50" to 20.47")
Dimensions (W x D x H)	3,319 (130.7") x 2,000 (78.8") [2,373 (93.5") including operation panel] x 1,945 mm (76.6") [printer unit]
Weight	3,430 kg (7,546 lb)
Power source	Printer: Three phase 200 to 230 V, 40 A / 380 to 440 V, 25 A Three phase 200 to 230 V, 70 A / 380 to 440 V, 45 A Single phase 100 to 240 V, 2 A
Operating environment	Temperature: 18 to 24 °C (64.4 to 75.2 °F) (no sudden temperature changes) Relative humidity: 40 to 60 % (no condensation)



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