Truepress Jet520HD specifications

- **Printing system:** Inkjet, Piezo single-pass DOD
- **RIP:** EQUIOS
- **Inks:** Truepress inks for Truepress Jet 520HD
  - CMYK (standard), spot color
  - Protective coat (planned)
- **Resolution:** Max. 1,200 x 1,200 dpi
- **Printing speed:** Max. 120 m (393.6')/min. (under Screen's conditions)
- **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
- **Dimensions (W x D x H):** 4,070 x 2,369 x 2,195 mm (160.3" x 93.3" x 86.5")
- **Weight:** Approx. 4,000 kg (Approx. 8,800 lb)
- **Power requirements:**
  - **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
  - **Unwinder/Rewinder:** Single phase 100 to 200 V, 17 A
- **Operating environment:**
  - **Temperature:** 18 to 24°C (64.4 to 75.2°F)
  - **Humidity:** 40 to 60% (no condensation)

This brochure was made using SPEKTA 2 screening.
Capitalizing on the quality, speed, accuracy, and innovation in inkjet printing, we are continually evolving Truepress Jet520 series printing systems to new levels. In our pursuit for quality that expands the boundaries of conventional inkjet concepts, that challenge is now opening new doors that we have never seen.
Realistic images that look almost touchable, that let you feel wildlife breathing

Transcending conventional thought in inkjet printing, the Truepress Jet520HD vividly expresses colors, textures, details, and even solid areas.

**Breathtaking**

Featuring multiple droplet sizes and the latest printhead technology

With its 1,200 dpi high-resolution and precise droplet size control, the Truepress Jet520HD delivers high-quality printing even in areas with the most minute of details. Thanks to its beautifully smooth and vibrant reproduction of these details, the Truepress Jet520HD produces quality levels that match offset printing.
Beautifully detailed scenery that takes you to the place you seek

The beautiful scenery that unfolds before you makes it seem as if you are actually there, and that brilliantly expressed and inspiring spectacle remains etched into your mind’s eye.
Accurately reproduces microtext

The Truepress Jet520HD is able to place two picoliter droplets, the world’s smallest level, exactly where they are required on paper as it moves through a high-speed transfer system. This extremely accurate printing is made possible by the system’s new printhead technology. Even microtext embedded in lines and patterns is reproduced with unfailing precision.

Astounding technology that fully expresses even detailed areas

The Truepress Jet520HD delivers quality levels that dramatically exceed expectations even during high-speed printing. This includes extremely accurate reproduction of the microtext used in security printing.
Ultra high-speed RIP processing of large-volume data

The Truepress Jet520HD is designed to produce high-speed variable printing of outstanding quality. EQUIOS’s smart variable data processing function enables rapid processing of rich content, achieving variable output of images at offset print quality.

The optimum added value that is most appropriate to the task

Even with variable printing, the Truepress Jet520HD takes print quality to a completely new level. Every leaflet or flyer reaches its target with quality levels that rival offset printing.
Comparison of color gamuts

The Truepress Jet520HD incorporates a range of leading technologies in its printhead, ink and transport systems, all designed to maximize its capabilities and produce quality levels that rival offset printing. This outstanding performance redefines the existing concept of variable printing systems and opens up new business opportunities in the printing market.

**Print Quality**

- **Maximum resolution of 1,200 dpi**
  - The adoption of newly developed grayscale heads allows much-detailed 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.

- **Precise 0.1 pt lines and microtext**
  - Conventional inkjet presses are known for their issues with printing small characters and fine lines. Thanks to its maximum resolution of 1,200 dpi and minimum droplet size of two picoliters, the Truepress Jet520HD delivers extremely precise reproduction even in this range. The result is a sharp, eye-catching finish with no spread of ink or jaggies.

- **Quality control using built-in scanner**
  - Unevenness between printheads is often cited as a problem when using presses with multiple heads. The Truepress Jet520HD features built-in quality control scanners that perform regular checks and automatically adjust operation to ensure uniformity. After correction, the information is registered in an EQUIOS Hot folder as a paper profile.

- **BinaryGrayscale uni**
  - Chemical resistance. With a wide color gamut virtually the same as offset inks, Screen’s proprietary Truepress inks for 520HD provide high-quality printing on a wide variety of paper types, including recycled and other special papers. It also supports paper thicknesses from 40 to 250 gsm, significantly expanding the range of potential applications.

**INK AND HEAD CONTROL**

- **High-performance specialized inks**
  - Screen has developed a range of new inks with various characteristics (high light and chemical resistance. With a wide color gamut virtually the same as offset inks, Screen’s proprietary inks enable unprecedented quality levels for an inkjet press.

- **Two additional printheads**
  - An extra two printheads can be added as options (planned), allowing the Truepress Jet520HD to accommodate specialized inks such as spot colors and protective inks, or additional CMYK (up to six colors). The wider expressive capabilities provided by these inks greatly expand the range of printing services that can be offered to clients.

- **Printhead parking function**
  - The Truepress Jet520HD is equipped with a unique printhead parking function that repositions the colors included in print data in advance and activates only the required heads. The print head that is not in use keeps the cartridge caps closed, increasing the efficiency of both ink and energy usage.

**VARIOUS CAPABILITIES**

- **Easy touch panel operation**
  - The Truepress Jet520HD incorporates a range of leading technologies in its printhead, ink and transport systems, all designed to maximize its capabilities and produce quality levels that rival offset printing. This outstanding performance redefines the existing concept of variable printing systems and opens up new business opportunities in the printing market.

- **Compatibility with various paper types**
  - In addition to standard inkjet papers, the Truepress Jet520HD provides high-speed and of course high-quality printing on a wide variety of paper types, including recycled and other special papers. It also supports paper thicknesses from 40 to 250 gsm, significantly expanding the range of potential applications.

- **Shifting of printing position to follow fine paper movements**
  - The Truepress Jet520HD is equipped with a dynamic nozzle shift mechanism. The sensors installed as part of this innovation perform real-time detection of the fine oscillations and vibrations that occur during the high-speed transport of paper. The printing position is then automatically adjusted to the optimal position for the printing data. The mechanism reduces the effects of misalignment and skewing much more effectively than in previous systems and ensures stable, consistent print quality.

- **Paper feeding assist mechanism**
  - A paper feeding bar is installed to support trouble-free setting of paper in the system. Once its leading edge is gripped by the bar, the paper can be set through the discharge section simply by turning a handle. This approach greatly reduces the labor involved in preparing the printing and allows fine procedures to be performed easily and reliably.

- **Easy maintenance**
  - The Truepress Jet520HD uses a pull-out type cartridge module, allowing easy 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.

- **Safe and reliable ink replacement**
  - The ergonomically designed ink supply system uses 10-liter ink cartridges that feature a different cap shape for each color. This helps to prevent in- correct insertion and reduce the frequency of ink replacement. The cartridges also gradually incline as the remaining volume of ink decreases, ensuring ink is used right down to the last droplet.
EQUIOS is a professional workflow system created based on Screen’s extensive experience to provide straightforward usage regardless of the operator’s own experience and specialized skills. 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.

The Truepress Jet520HD is preloaded with JetInspection, proprietary high-definition screening technology, enabling optimal display of gradations in images from highlights and shadows through to midtones. This system also removes noise and reduces dots to foreign substances, color variations and moiré and broken lines to produce high-definition results. It is also possible to automatically create files for defect image data and link to processes using postscript and CTP files.

As print quality has continued to increase, so has the demand for improved detection capabilities. The Truepress Jet520HD is equipped with JetInspection, a software that is capable of performing highly comprehensive real-time inspection of high-quality variable images across all pages, as well as of course providing conventional processing of OCR fonts and decoding of bar codes. This system also enables inspection logs to be shared with EQUIOS.

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

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