FUJIFILM



Jet Press 720

B2 sheet-fed inkjet digital press

The Jet Press 720 is a groundbreaking sheet-fed inkjet press that sets new standards in digital printing. Its format size combined with unprecedented quality and productivity mean it will open up new opportunities for digital print.



- > 2,700 B2 sheets per hour
- ► True offset quality print
- Standard B2 coated paper
- Virtually no make-ready
- Dry printed sheet on output
- Variable data



The business opportunities for the Jet Press 720

The Jet Press 720 is set to open up new opportunities in the market for shortrun, general purpose commercial print. With a B2 format size and production speeds of 2,700 B2 sheets per hour, this revolutionary new machine is faster and more flexible than any other digital sheet-fed press on the market.



The 'sweet-spot' for the Jet Press 720 is short-run jobs where the run lengths are too long for pay-perclick SRA3 digital presses to be economical but where traditional offset presses struggle because of the longer pre-press and makeready times. This 'sweet-spot' is typically from run lengths of around a few hundred to a few thousand.

The drive towards shorter, more economical and targeted print runs plays into the hands of the Jet Press 720 with this trend only set to continue. The run lengths within this 'sweet-spot' are where a significant number of jobs are currently being printed, and where the volume growth is likely to take place in the future.

The format size of the Jet Press 720 will also create new opportunities for digital print,



The B2 format size makes it possible to print many jobs digitally that were previously impossible, eg. gate-fold, folders, etc.

with applications such as gatefold brochures, folders, and more unusual page sizes all being possible down to run lengths of one.

A breakthrough in digital print quality

The Jet Press 720 takes the print quality produced by a digital printing system to new heights thanks to a combination of technologies. Firstly, the Jet Press 720 makes use of SAMBA™ print-head technology for singlepass inkjet printing developed by FUJIFILM Dimatix. This piezoelectric MEMS* precision fabrication technology achieves resolutions of 1,200 dpi x 1,200 dpi with four levels of grey scale, a specification unobtainable from any other digital printing system.

Secondly, Fujifilm has made use of the company's advanced chemical technology to develop a pre-coat solution and waterbased inks which enable bleedfree, high quality images to be produced. The quality is enhanced through Fujifilm's unique 'anticurling' and 'rapid coagulation ink' technologies, which prevent paper curl and dot gain.

Thirdly, the repeatability from sheet-to-sheet is second to none. This is because the Jet Press 720 makes use of the superb registration accuracy of an offset press (the paper handling is identical to offset) and combines it with the inherent stability of an inkjet printing system.

Finally, quality is further enhanced through the use of a CCD sensor which scans every sheet and makes any necessary alterations in real time.

The combination of these technologies means Fujifilm is advancing the quality of digital print to levels never reached before.



1,200 x 1,200 dpi

four level greyscale

inkjet heads

technology with the potential to even surpass offset quality

real-time closed-loop colour control

offset registration accuracy

very stable inkjet

printing system

bleed-free ink coagulation technology *MEMS is a general term that refers to technologies that are used to create three dimensional electronic and mechanical structures on silicon substrates at a micrometer level, and manufactured parts using such technologies.

The best of both worlds for short run print

The Jet Press 720 combines the best in offset paper handling with the very latest inkjet deposition technologies to produce the best of both worlds for short run print.

Output

The final printed sheet emerges in the delivery area in the same way as a traditional offset press, but completely dry. Sheet drying Drying after printing is achieved by a combination of heat and air to ensure that the sheet emerges from the press completely dry for immediate finishing.

SAMBA™

Piezoelectric MEMS precision fabrication technology achieves unprecedented resolutions of 1,200 dpi x 1,200 dpi with four levels of grey scale.

Sheet scanning

Once dry, every sheet is scanned via a CCD with the system making any necessary alterations in real time.





Paper transport

Paper transport through the press is achieved by way of traditional sheet-fed rollers and paper grippers for high accuracy and reliability.

Pre-coating

The pre-coating unit applies an ultra-thin film of pre-coat material onto the paper via an anilox roller mechanism. The reaction of the coating and the water-based ink produces incredibly sharp dots and vibrant images on standard B2 coated paper.

How the Jet Press 720 can improve short-run print

Break-through productivity and quality, combined with unprecedented environmental performance and the flexibility to fit easily into existing pressrooms, make the Jet Press 720 a perfect fit for the business of short-run printing.

Thanks to SAMBA[™] technology, the Jet Press 720 can print a B2 sheet in a single-pass, resulting in production speeds of approximately 180 sheets (A4 size equivalent) per minute or 2,700 B2 sheets an hour. This represents unprecedented productivity for a sheet-fed digital press and will move the break point for the cost effectiveness of digital as a print production technology further into the traditional litho area.

Fujifilm estimates that the Jet Press 720 will be particularly competitive for print runs up to around 2,000 sheets. Productivity is further improved as the B2 printed sheet emerges from the press completely dry, thanks to the drying process that occurs once the paper is imaged.

This means that 1,000 copies of a 32-page brochure can be printed and ready for finishing in half the time taken for the same job to be produced on a traditional offset press.



Ink deposition is carried out in the Jet Press 720 in a unique way via four SAMBA™ print bars arranged around a rotating drum.



The Jet Press 720 virtually eliminates make-ready times to maximise productivity and minimise job turn-around time.

"1,000 copies of a 32-page brochure can be printed and ready for finishing in half the time taken on an offset press"





Flexibility to fit into existing pressrooms

The Jet Press 720 has been designed to make digital print production much more flexible. Firstly, as the machine is B2 format, it fits into existing sheet-fed pressrooms without the need for any alterations in terms of paper handling and finishing.

Secondly, standard B2 coated paper can be used, removing the requirement to use specialised (and expensive) digital paper. This means, for example, that a B2 printer can take advantage of current B2 paper stocks, simplifying inventory and stockholding and reducing costs.

Finally, the range of finishing options available are much wider than with many other digital print technologies. Once imaged, the B2 sheet can be treated like an offset sheet, dropping into existing finishing equipment with many special finishes possible. As a result, digital print can be treated like offset print more than ever before, with the additional major benefit of the sheet emerging from the press completely dry.

Environmental benefits

The advantage of digital print in terms of optimising the number of printed copies produced and minimising the amount of unnecessary over-runs is a key benefit of the Jet Press 720. However, there are a number of other significant environmental benefits.

Firstly, the number of makereadies is considerably reduced. On some short-run jobs on traditional sheet-fed presses, the number of make-ready sheets can represent a significant percentage of the total run, up to 25% in some cases. This problem is significantly reduced with the Jet Press 720 as the make-ready time is virtually zero.

Secondly, the Jet Press 720 removes the need for a number

The Jet Press 720 fits perfectly into existing sheetfed pressrooms.

of the pressroom consumables used on a typical offset press, for example founts, sprays and potentially harmful VOC washes, and of course significantly reduces the requirement for water. The Jet Press 720 requires only two consumables in addition to the water-based ink. These include a wash for the inkjet print-heads and a solution used for pre-coating the paper prior to printing.

Thirdly, as part of the life cycle analysis Fujifilm carries out on all its products, the company estimates that the carbon footprint of the Jet Press 720 compared to an equivalent B2 sheet-fed press (internal estimate*) is approximately 25% less.

Finally, the results of trials carried out by UPM and the International Association of the Deinking Industry (INGEDE) on sheets printed by the Jet Press 720 indicate levels of deinking on a par with offset inks, and represent a milestone in the ability to remove the ink from an inkjet sheet.



*Effective CO₂ produced (Kg) estimated on a print run of 1,000 sheets.

Workflow

Fujifilm's XMF cross-media workflow provides connectivity to the Jet Press 720. XMF is ideally placed to drive the Jet Press 720 due to its unprecedented productivity and its ability to easily handle work for both offset and digital print processes. In addition, XMF provides the mechanism by which variable data and personalised print can be produced on the Jet Press 720.



Specifications*

Productivity	2,700 B2 sheets per hour
Resolution	1,200 x 1,200 dpi, 4 level greyscale
Paper size (min)	542 x 382 mm
Paper size (max)	750 x 530 mm
Printable area	720 x 520 mm
Paper type	Standard B2 coated
Paper weight	100 – 300 gsm
Input paper capacity (max)	800 mm in height
Output paper capacity (max)	600 mm in height
Variable data support	Yes
Workflow	FUJIFILM Workflow XMF
Dimensions	2.7 m (D) x 7.3 m (L) x 2.0 m (H)



The Jet Press 720 features comprehensive drying capabilities to ensure the sheet emerges dry for immediate finishing.

* The specifications are provisional and are subject to change without notice



Please contact your local FUJIFILM partner for further information.

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