FUJIFILM
Value from Innovation

Label & packaging

RANGE GUIDE

Your partner for packaging print

Discover our
label & packaging range

Why Fujifilm?

Fujifilm's legacy, technology portfolio, size and diversity gives the company a powerful platform to develop leading analogue and digital systems. With an ambition to lead the transition to digital, we look forward to developing deep and sustainable partnerships long into the future.

Heritage

- We have a 60 year history in the development of high performance inks for analogue printing applications
- Our analogue printing plates have been used for packaging applications for many years, in both offset and flexo applications

Technology

- Our inkjet technology portfolio is the strongest in the industry, allowing us to develop leading digital production systems

We value trust

- Trust is in our DNA, from our origins as a photographic film business, to our company-wide charter for corporate behaviour

Size and stability

- We have a diverse technology portfolio across multiple markets
- The global revenue from our Graphic Communications business was €2 billion in 2021, a significant proportion of this invested in the development of new digital solutions

Support

- We have developed a world-class infrastructure to support your business, whatever the situation
- We can run remote diagnostics on your Fujifilm equipment to minimise downtime

Analogue.
Digital.
Sustainable.

At Fujifilm, we understand how print can add value to packaging and are combining expertise in the very latest digital print technologies with an analogue heritage, to create a product portfolio that supports the production of both analogue and digitally printed packaging.

We work with packaging producers whatever the stage of their journey; whether it's helping them to optimise analogue production lines to maximise efficiency or introduce a digital capability. We don't do one-size-fits-all – we do the right solution, for the right producer, at the right time. And all our solutions, whether analogue, digital or somewhere in-between, are designed to reduce waste and the use of environmentally harmful chemicals, minimise energy consumption and to be as sustainable as possible.

Making packaging
more sustainable

Sustainability is one of the threads that links all of our packaging solutions, from analogue to digital and everything in-between.

Our Flenex plates reduce waste and eliminate the use of environmentally harmful solvents altogether, and when combined with our PRC1 filtration unit, water use is also minimised. Our LED UV curing system slashes energy use, and our narrow web Inks are solvent-free and manufactured in the UK at our award-winning Broadstairs factory, where extreme care is taken to ensure all manufacturing and operational processes are as environmentally responsible as possible.

Similarly, our imprinting solutions can breathe new life into an analogue production line, bringing additional functionality without the investment in a new line. Where a new investment is necessary to meet market needs, the Jet Press 750S and Jet Press FP790 digital presses eliminate many of the processes and consumables associated with traditional analogue production. Much has also been written about how the Jet Press 750S can contribute to a more circular economy.

Sustainability

Analogue solutions

With volumes typically far larger than other print sectors, digital is in its comparative infancy in the world of packaging. This means that not all producers are ready for significant digitisation of their printing operations and almost all that are will go hybrid, retaining significant analogue capability.

But continuing with analogue processes doesn't mean the technology stands still – far from it. Technology and innovation have a huge role to play in the future of analogue package printing. Fujifilm is a key part of that future, with a constantly evolving analogue product portfolio designed to improve the performance and sustainability of analogue printed packaging.

Flenex FW
water–washable flexo plates

200
lpi

1
% process
dot

4,000
dpi

The highest quality
and no solvents

40
mins plate-
making time

Flenex FW is a water-washable flexo plate that provides the highest print quality and productivity, while significantly lowering the cost-in-use compared to thermal, solvent or other water-wash plate technologies.

Key benefits

• Total platemaking time under 40 minutes

• Highest flexo quality (200lpi, 1% process dot), depending on the conditions

• More output per shift for class-leading productivity

Technology overview

Flenex FW photopolymer plates contain a special rubber-based compound that offers a number of inherent advantages over other elastomeric materials from which most other flexo plates are made.

• Reduced dot gain

• Better ink transfer for cleaner, brighter print results

• Faster exposure and washout times

• Much more durable

• Mild washout with water and dishwasher soap

• Reduced plate swell

High quality, cleaner and brighter print

The Flenex FW water-washable plate system does far more than simply eliminate the need for solvents and wicking cloths. It delivers longer runs while producing a consistent 200lpi at 4,000 dpi, 1% process dot structure for superb high quality print, depending on the conditions.

Flat top dot structure

The rubber-based compound means a 1% flat top dot can be achieved without complex systems to eliminate oxygen, and results in lower dot gain. In addition, better ink transfer produces noticeably cleaner and brighter print results.

Solvent plate (round-top-dot)

Flenex FW plate (flat-top-dot)
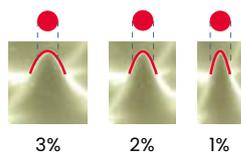
3%   2%   1%
Poor gradation

Round-top-dot
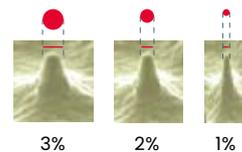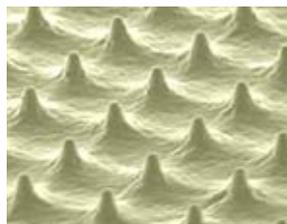
3%   2%   1%
High gradation

Flat-top-dot

"

We already had a strong working relationship with Fujifilm, having used their inks for some time, and the Flenex trial was an instant success, immediately remedying the problems we were facing."

Colin Le Gresley, Company Owner, Aztec Label

Flenex FW benefits
your business

Higher productivity

Flenex FW water-washable plates reduce platemaking processing times to less than 40 minutes, 300% faster than leading solvent systems and 1.5 times faster than current thermal and water-wash technologies. Faster platemaking means more time on press and a dramatic increase in output per shift, freeing you to redeploy labour to more value-added activities.

More durable

Flenex FW is proven to deliver significant improvements in plate durability and reductions in plate swell, thanks to its unique technology. This means each plate is able to perform longer on press than competitive plates. This increases overall press uptime and results in longer print runs and greater overall profitability.

Key features

- Increase in number of plates produced
- Increase in quality
- Faster job turnaround
- Maximise press time
- Lower labour costs or opportunity to redeploy
- More environmentally friendly plate making

Durability
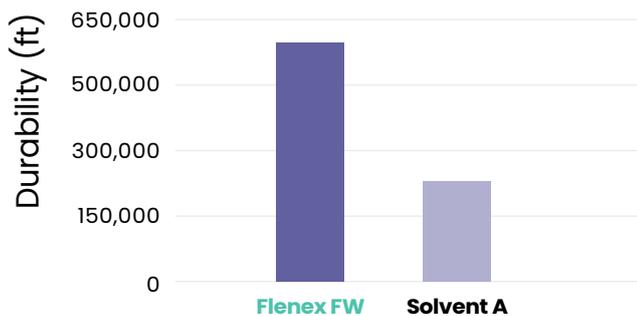
Flenex FW	Solvent A
590,051	262,467
Cartons	
OMET	
Coated Paper	
55 m/minute	
Digital 1.14 mm	

Durability (ft) chart — Flenex FW: ~590,000; Solvent A: ~262,000

Legend:
- *Exposure*
- *Washout*
- *Drying*
- *Post-exposure and detack*

Chart categories:
- **Flenex FW**
- **Leading water+ Strong alkaline water-wash**
- **Leading solvent-wash plate**

x-axis: 0, 20, 40, 60, 80, 100, 120, 140, 160 — Minutes

50% faster than current thermal and water-wash technologies

300% faster than leading solvent systems
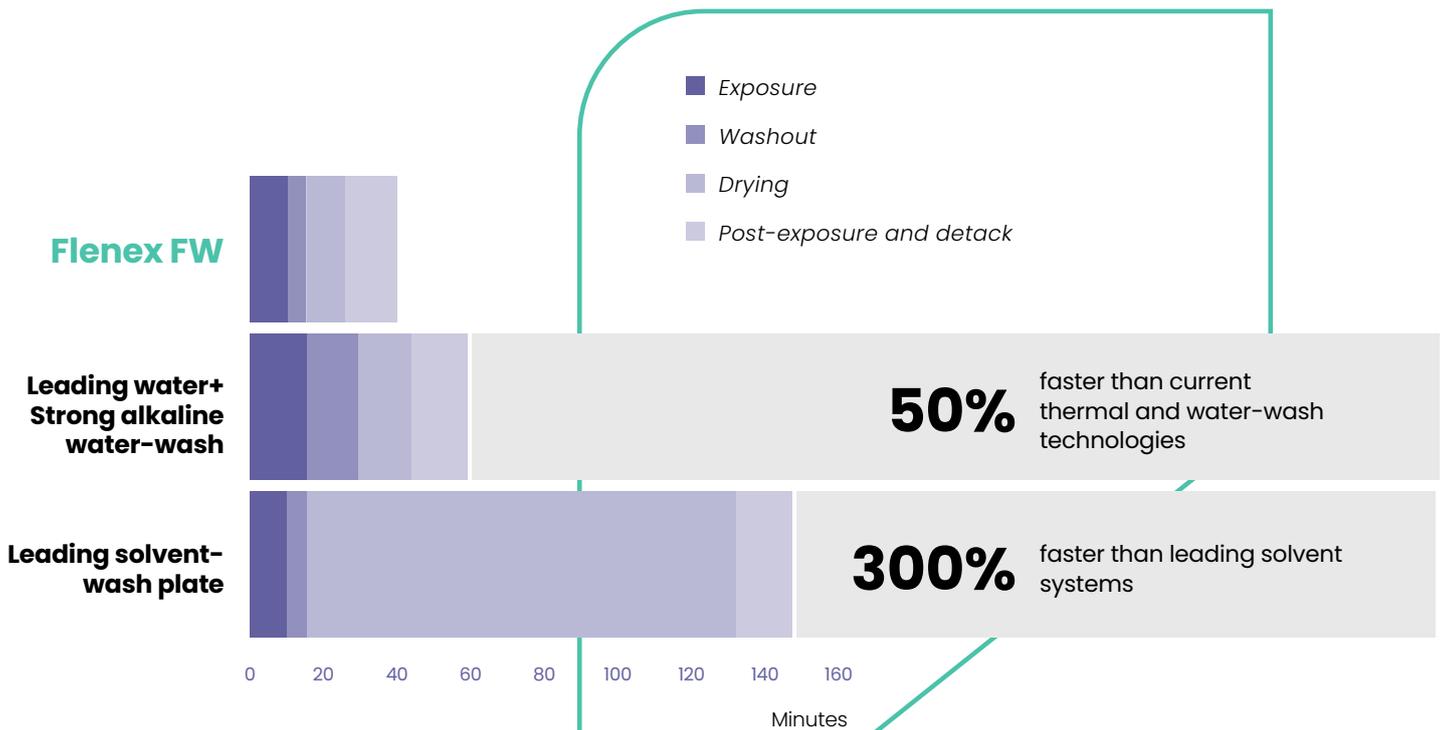
Lower cost-in-use

Because of the simplicity of Flenex FW plate processing, the expense of higher cost solvent and thermal processors as well as potential upcharges on associated consumables is avoided. The Flenex FW system therefore represents the lowest cost in use for the production of flexo plates. Here is a simple comparison of the costs of solvent and thermal systems:

Additional costs of solvent systems

- Solvent used to process the plate
- Film or nitrogen consumables
- More expensive solvent processing equipment
- Energy use
- Waste disposal and associated regulatory and safety costs

Additional costs of thermal systems

- Thermal wicking cloth and thermal processing
- More expensive thermal processing equipment
- Waste disposal and associated regulatory and safety costs

Better durability than other systems

Technical specifications

Main applications	Flexible packing, stickers/labels, envelopes, cartons, paper/plastic bags, varnish coating				Varnish coating
Plate types	Analogue plates	Digital plates			Analogue / digital plates
	FW-A	FW-L	FW-L2	FW-FP	FW-AV & FW-LV
Support	Polyester film 0.125 mm	Polyester film 0.125 mm	Polyester film 0.125 mm	Polyester film 0.188 mm	Polyester film 0.250 mm
Thickness	1.14 mm	1.14 mm	1.14 mm	1.14 mm	0.95 mm
	1.70 mm	1.70 mm	1.70mm	1.70 mm	1.14 mm
	2.54 mm	2.54 mm			
	2.84 mm	2.84 mm			
Size*	610 x 762 mm	533 x 508 mm	635 x 762 mm	635 x 762 mm	850 x 1070 mm
	762 x 1016 mm**	635 x 762 mm	762 x 1016 mm	762 x 1016 mm	900 x 1200 mm
	900 x 1200 mm**	900 x 1200 mm**	900 x 1200 mm	900 x 1200 mm	
	1067 x 1524 mm**	1067 x 1524 mm**	1067 x 1524 mm	1067 x 1524 mm	
Hardness (Shore A)***	74/77/82 (°) 1.14 mm	74/82 (°) 1.14 mm	74 (°) 1.14 mm	78 (°) 1.14 mm	80 (°) 0.95 mm
	62/68/74 (°) 1.70 mm	62/74 (°) 1.70 mm	67 (°) 1.70 mm	70 (°) 1.70 mm	78 (°) 1.14 mm
	62 (°) 2.54 mm	62 (°) 2.54 mm			
	62/68 (°) 2.84 mm	62/68 (°) 2.84 mm			
Ink compatibility	Water-based ink	Water-based ink	Water-based ink	Water-based ink	Water-based/UV varnish
	UV ink	UV ink	UV ink	UV Ink	
				Solvent ink	
	Water-based/UV varnish	Water-based/UV varnish	Water-based/UV varnish	Water-based/UV varnish	

*   The number of sheets per case may vary by product grade. Please contact your Fujifilm representative with any questions
**   Only available in 1.14 and 1.70 mm thicknesses
*** Fujifilm measurements

"

We're seeing a quicker turnaround on getting our high quality products to market and less downtime on our presses, which is increasing our capacity and enabling us to print more labels in less time."

Michelle Coetzee, Pre-Press Manager, MCC Paarl
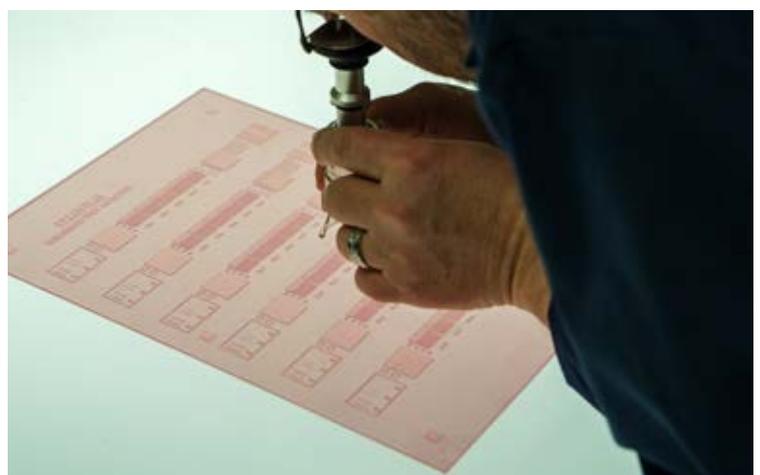
C-Touch MK2
processor

The C-Touch MK2 is an ideal system for small and medium-size companies to bring plate making in-house. An easy access all-in-one clamshell design provides efficient plate handling and in combination with Flenex FW plates, the C-Touch MK2 offers the industry's fastest plate-making times.

Key features

- All-in-one clamshell design

- Robust and reliable operation

- Best-in-class waste-water capabilities

- Optional remote diagnostics service

- Integrated air gun and spray-nozzle

- Transport rollers for easy installation

- 3 versions available based on maximum plate size:
  C-Touch MK2 2530: 63 x 76 cm
  C-Touch MK2 3040: 76 x 102 cm
  C-Touch MK2 3648: 92 x 122 cm

Produce plates as you need them

Combining the C-Touch MK2 with Flenex FW plates minimises platemaking processing times to under 40 minutes (depending on plate type). This is 3 times faster than leading solvent systems and 1.5 times faster than current thermal and water technologies.

Compact all-in-one design for efficient production

The clamshell design provides easy access for mounting and washing plates. It also includes pullout drawers for making exposure steps, light finishing and drying with temperature control. An air-gun and spray-nozzle are built-in for efficient cleaning and pre-drying.

Consistent, high-quality plate output

High quality equipment design and build for consistent, reliable operation, every day. Back and forth orbital rotation achieves excellent relief washout that results in clean dot reproduction even for HD flexo.

Environmentally friendly system

With best in class waste water capabilities, the C-Touch MK2 is part of Fujifilm's on-going development program to deliver products with the lowest environmental impact.

Easy to use with comprehensive support

The user interface is accessible in different languages (selectable on the display), with English, German, Spanish, French and Italian available. In addition, remote diagnostics can provide peace of mind, with fast and efficient support.

Technical specifications

C-Touch MK2	2530	3040	3648
Processor type	Clamshell	Clamshell	Clamshell
Maximum plate size	63 x 76 cm	76 x 102 cm	92 x 122 cm
Plates per hour*	3 – 4	3 – 4	3 – 4
Wash time*	10 minutes	10 minutes	12 minutes
External dimensions (W x L x H)	135 x 162 x 120 cm (190 when open)	130 x 198 x 120 cm (195 when open)	145 x 220 x 120 cm (210 when open)
Weight	642 kg	730 kg	990 kg
Filter dimensions	70 x 45 x 100 cm	70 x 45 x 145 cm	70 x 45 x 145 cm
Filter weight	45 kg	65 kg	65 kg
Power requirements	400 VAC / 32 A 3 phase	400 VAC / 40 A 3 phase	400 VAC / 50 A 3 phase
Drip tray	200 x 172 x 5 cm	195 x 208 x 5 cm	210 x 230 x 5 cm

*Average productivity. Times vary according to plate parameters.

All-in-one easy to use unit

1. Accessible exposure section
2. Accessible washout section
3. Colour display and touch screen
4. Integrated tools for comfortable working conditions: air gun for fast drying and water spray for easy cleaning
5. Easy access drying drawers
6. Double air cylinder for even closing of the lid on both sides
7. Transport rollers for easy installation

SB938 FLW
processor

The SB938 FLW is an ideal system for medium-size businesses looking to bring plate making in house. Its easy-access all-in-one autofeed design provides efficient plate handling, and in combination with Flenex FW plates, the SB938 FLW offers the industry's fastest plate-making times.

Key features

- All-in-one autofeed design
- Robust and reliable operation
- Stable, chain-driven transport table to ensure optimum and even washing conditions.
- Automatic brush adjustment to ensure optimum brush pressure depending on plate thickness
- Brush frame and main tank can be moved for good cleaning access

- Best-in-class waste water capabilities
- Remote diagnostics service
- Colour touch screen operator interface with multiple language options
- Integrated air knife and spray bar
- Transport rollers for easy installation
- Maximum plate size: 92 x 122 cm

Produce plates as you need them

Combining the SB938 FLW with Flenex FW plates can keep your plate processing times under 40 minutes (depending on plate type). This is 3 times faster than leading solvent systems and 1.5 times faster than current thermal and water technologies.

Compact all-in-one design for efficient production

The liftable sticky plate and autofeed design provides easy access for mounting and washing plates. The unit also includes pullout drawers for making exposure steps, light finishing and drying with temperature control. Air knife and spray bar are built-in for efficient cleaning and pre-drying.

Consistent, high quality plate output

The SB938 FLW features high quality equipment design and a robust build that delivers consistent, reliable operation, day after day. The unit achieves excellent relief washout that results in clean dot reproduction – even for high definition flexo printing.

Environmentally friendly system

With best-in-class waste water capabilities, the SB938 FLW is part of Fujifilm's on-going programme to deliver products with the lowest environmental impact.

All-in-one easy to use unit

1. Accessible exposure section
2. Accessible washout section
3. Colour display and touch screen
4. Rinse bar for cleaning the plates after washing and an air knife for pre-drying
5. Easy access drying drawers
6. Double air cylinder for even closing of the lid on both sides
7. Transport rollers for easy installation

Filtration system

In combination with the PRC1 water filtration system, the bath life of the SB938 FLW can be considerably extended, helping to protect the environment by saving water.

Support when you need it

Optional remote diagnostics are available for fast and efficient support and extra peace of mind.

Technical specifications

SB938 FLW	
Processor type	Autofeed
Maximum plate size	92 x 122 cm
Plates per hour*	3 – 4
Water capacity	250 litres
Wash time*	15 mins
Air	6 bar/ 80 CFM
External dimensions (W x L x H)	192 x 335 x 120 cm (210 cm when open)
Weight	1450 kg
Filter dimensions	Integrated
Power requirements	400 VAC / 50 A 3 phase
Drip tray	202 x 345 x 5 cm

*Average productivity. Times vary according to plate parameters.

PDW4260
processor

The PDW4260 is the ideal system for medium to large size flexographic packaging businesses looking to bring plate making in-house, increase productivity and/or move to a more sustainable plate making process. The easy-access, auto-feed design provides efficient plate handling and in combination with the Fujifilm Flenex water-wash plates the PDW4260 offers the industry's fastest plate-making times in this format.

Key features

- Washout and pre-dryer section
- Robust and reliable operation
- Automatic brush adjustment to ensure optimum brush pressure depending on plate thickness
- Process water separated from the cleaning water
- Best-in-class waste water capabilities
- Remote diagnostics service

- Stable, chain-driven transport table to ensure optimum and even washing conditions
- Integrated air knife and spray bar
- Maximum plate size: 106.7 x 152 cm

Optional
- Exposure, dryer, post-exposure and detack unit
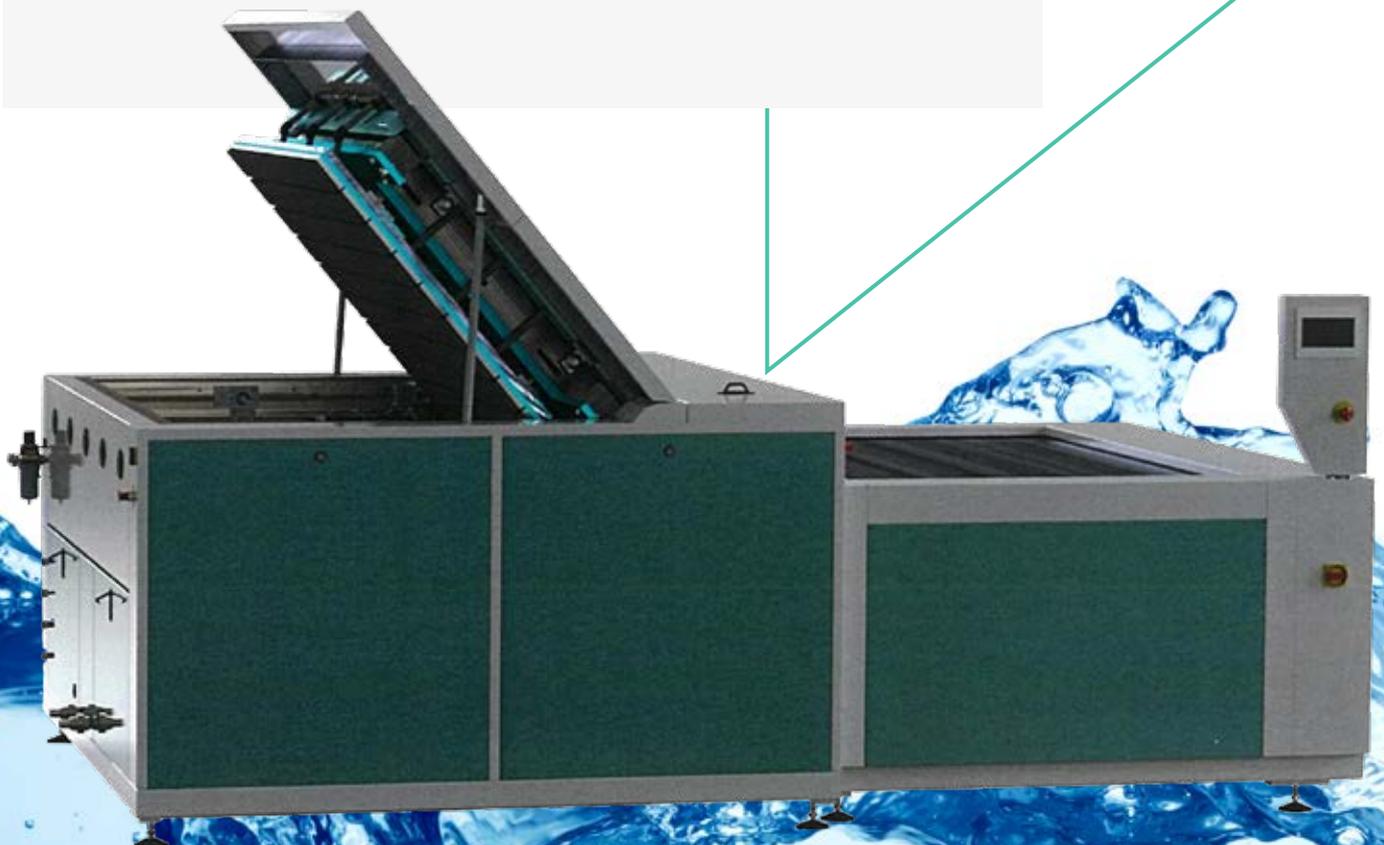
Produce plates as you need them

Combining the PDW4260 with Fujifilm Flenex water-wash plates can keep your total plate making time under 60 minutes for a 106.7 cm x 152 cm plate.

Efficient production

The auto-feed design provides easy access for mounting and washing plates. Air knife and spray bars are built-in for efficient cleaning and pre-drying.

Consistent, high quality plate output

The PDW4260 features a high quality design and robust build that delivers consistent, reliable operation, day after day. Back-and-forth orbital rotation achieves excellent relief washout that results in clean dot reproduction - even for high definition flexo printing.

Lower environmental impact

With best-in-class waste water capabilities, the PDW4260 is part of Fujifilm's on-going dedication to deliver products with the lowest environmental impact.

Filtration system

The PDW4260's robust filtration system increases productivity of the processor by reducing three critical things: downtime between cleanings, cost, and the impact on the environment.

Support when you need it

Remote diagnostics are available to provide peace-of-mind with fast and efficient support.

Technical specifications

PDW4260	
Processor type	Auto-feed
Maximum plate size	106.7 cm x 152 cm
Plates per hour*	2
Water capacity	172 litres
Wash time*	Under 30 mins
Air	6 bar/ 80 CFM
External dimensions (W x L x H)	250 cm x 340 cm x 132 cm (232 cm when open)
Weight	4,400 kg
Filter dimensions	Integrated
Power requirements	230 VAC I 60Hz 3 phase
Drip tray	202 cm x 346 cm x 5 cm

PDW Expose/Dry	
Maximum plate size	106.7 cm x 152 cm
UVA exposure lamps	24 x 100W 10R L. 1800
UVC lamps	27 x 36W L.1200
UVA post-exposure lamps	28 x 60W 10R L. 1200
Dryer drawers	4
Wattage	12 kW
Operation noise	Under 65 dB
Exhaust connection	80 mm
Electrical supply	230V (3PH+GND) 60Hz, 400V(3PH+N+GND)50Hz
Overall size (LxWxH)	216 cm x 190.5 cm x 113 cm
Weight	700 kg

*Depends on plate size

PRC1
filtration unit

In combination with the SB938 FLW or C-Touch processors, the PRC1 filtration unit minimises water usage and extends the processor bath life to reduce waste, disposal costs and maintenance, while also minimising the impact on the environment.

Key features (in combination with the SB938 FLW)

- Increased number of processed plates in a controlled and stable environment

- Remarkable extension of processor bath life

- Long, stable processing conditions

- Reduction in waste water

- Minimize disposal costs

- Keeps the processor cleaner for a longer time due to the removal of solids

- Longer operation time between cleaning cycles

- Reduced cleaning required

Minimise water use and waste

In combination with the PRC1 filtration unit, the bath life of the SB938 FLW can be considerably extended, helping to protect the environment by saving water. The PRC1 filtration unit also helps to save time and cost as it results in a cleaner processor, and extends the time between cleaning cycles.

Technical specifications

PRC1	
Dimensions	(L x W x H) 193 x 113 x 198 mm
Weight	445 kg
Water tank volume (L)	110 (mix/buffer)
Electrical power	2.5 kW / 230 Volt / 10 A
Compressed air	6 bar / 10 CFM / fitting 8 mm
Water connections	Tap water inlet 12 mm
	Drain 25 mm
	Connection to/from system 20 mm
Drip tray	180 x 125 x 5 cm

"

We were attracted to the sustainability characteristics as much as the high print quality and productivity"

Matt Francklow, Managing Director, Creation Reprographics

For coatings the benefits are clear

Spot varnish coatings are critical to completing eye-catching book jacket designs that stand out on the shelf and help to drive sales. Leading UK book printer CPI Books, based in Croydon, south London, was previously using thermal flexographic plates for this process, but concerns over print quality and excessive waste – including the use of solvents and wicking cloths – led them to investigate Fujifilm's Flenex water-washable flexo plates as an alternative.

As a Jet Press customer, CPI Books already had a pre-existing relationship with Fujifilm and they made the decision to broaden this partnership much further, to include the supply of Flenex FW plates, following a period of consultation and a visit to the Fujifilm Advanced Print Technology Centre in Brussels.

CPI began to see the benefits of making the switch immediately. Graham Faulkner, Works Manager at CPI Books, says: "In early 2019 we took the decision to switch to Fujifilm's Flenex water-washable flexo plates for our spot varnish coating applications. It has to be said that since the switch we have seen numerous benefits over the previous thermal plate we used.

"We have seen a definite improvement in print quality with improved varnish transfer leading to a higher gloss finish on the final print. Additionally, we see much sharper edges to the printed image.

"Over time we have also seen that we incur less waste due to registration issues with improved press stability and excellent batch to batch plate consistency, something we had previously struggled with. Since adopting the Flenex plate, we have almost completely eradicated plate remakes, saving time and reducing associated waste polymer plates".

"

Since adopting the Flenex plate, we have almost completely eradicated plate remakes, saving time and reducing associated waste polymer plates."

**Graham Faulkner,
Works Manager, CPI Books**

High performance

Narrow web inks

Fujifilm offers a comprehensive range of inks and associated products that are specifically designed to maximise throughput and simplify production on a narrow web press.

Fujifilm's UV and LED UV Sericol inks for narrow web applications have the following key benefits:

Use more efficient print technologies

Sericol ink products allow printers to use more efficient print technologies. A prime example of this is Flexo JD752 Supernova White that can be used to substitute expensive rotary screen production allowing lower cost, faster flexo printing.

Easy, accurate colour matching

Set up times can be reduced, and colour accuracy improved, thanks to the easy and accurate colour matching of Sericol inks.

Improve the production process

Sericol inks allow printers to produce better, faster and cheaper output than was previously possible.

Technical support

All ink products and services are supported by an expert team who can demonstrate the key benefits and help printers to maximise press throughput.

Consistent quality

All Sericol ink products are manufactured in Fujifilm's award-winning UK-based ink factory, and are produced in a strict, high quality, industry-leading process controlled operation. This ensures Fujifilm delivers consistent, high quality inks each and every time.

> **"**
> **These inks offer a wider colour palette, higher quality metal effects, solid whites, and by using denser ink pigments, reduces ink usage overall, which is better for the environment."**

**Paul Morgan, Ink Technician, Skanem Cardiff**

Micro-V dispersion technology

Sericol flexo inks have been developed using innovative Micro-V dispersion technology that allows ultra-high pigment loading while maintaining good viscosity and flow. This technology is combined with quality driven, process controlled manufacturing to ensure that inks are produced to the same high quality every time.

Key benefits that this technology offers include:

- High colour strength, so inks are economical in use

- Fast curing, allowing high throughput

- Optimised viscosity and flow, improving the appearance of the finished print

- Consistent, reliable performance
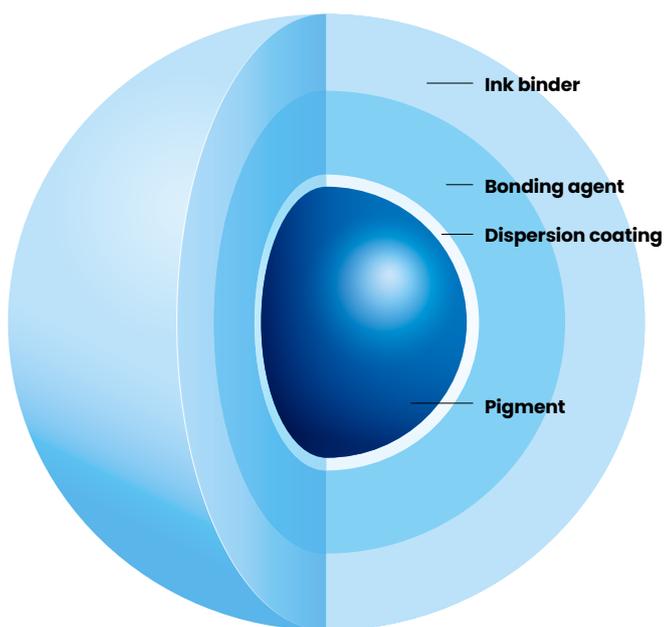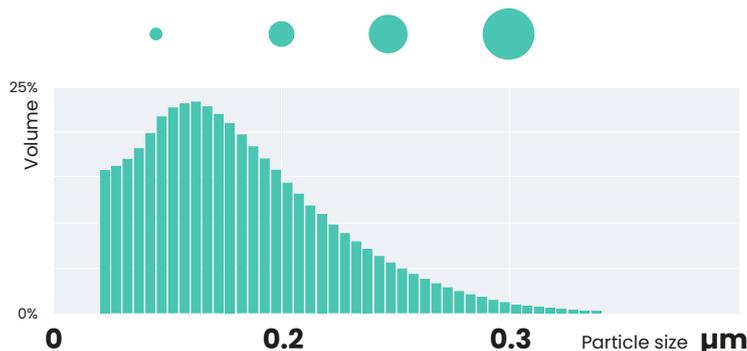
When Fujifilm designs an ink, it starts with the colour - the pigment dispersion. This is combined with polymers, oligomers, and other liquid components to impart the finished ink properties and enable it to be cured by UV light.

The Micro-V process grinds pigments to the optimum size for jetting, colour loading and ink stability.
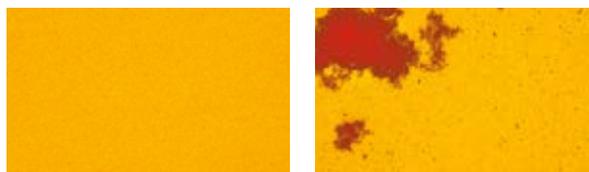
*These images at 400x magnification illustrate the quality of the dispersions produced by Fujifilm Micro-V dispersion technology against lower quality dispersions. Micro-V produces a fine, stable dispersion (left image). The lower quality dispersion is unstable and pigment particles clump together (right image).*

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Focusing on a greener future

Craig Milsted
Sustainability Advisor
Fujifilm Speciality Ink Systems

Fujifilm's ink R&D and manufacturing facility in Broadstairs, Kent, has regularly made the news as a four-time winner of the UK's Best Factory Award, but it is for its sustainability initiatives that it is now rapidly creating waves. The facility has implemented a wide range of initiatives to accelerate change towards a more sustainable operation.

1000 litre IBCs
returned for cleaning and reuse, rather than disposing of them

100%
of our raw materials packaging is reused and recycled
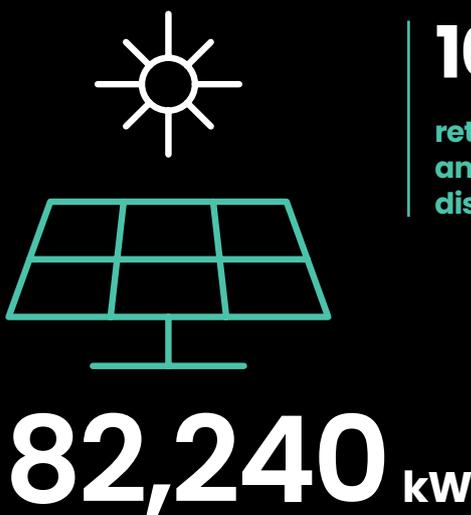
82,240 kW
of power was produced from our solar panels in June 2022, that's enough to power a typical UK household for 26 years

This is also 181% more power than the 29,185 kW produced in June 2021

689.7 tonnes
of waste produced on site went for recycling

(in 2021)

We've saved 1 million kW per year
on conventional energy by turning our factory HVAC (heating, ventilation and air conditioning) systems off overnight

80%
we replaced our oil-based solvent cleaner with an 80% water-based (aqueous) cleaning solution, combined with a 'world-first' pot washing machine

In R&D we have achieved a...

50% reduction
in glass jar testing

38% reduction
in end container testing for one litre bottles

74% reduction
in end testing for five litre containers
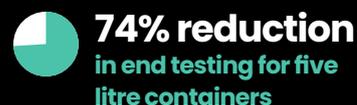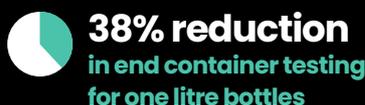
We have also cut back on the use of one, two and three litre pouches by 29%, 33% and 20% respectively

Sericol Flexo JD

UV cured ink range

Sericol Flexo JD is a Benzaphenone and ITX-free high gloss UV flexo ink system that incorporates a wide range of colours, process inks, metallic shades and specialist products.

Key features:

- Low viscosity press ready colours
- High colour density
- Adhesion to a wide range of synthetic substrates, including top coated PE & PP, PVC, PET, some thermal papers, metallised foils and most commonly available papers
- Suitable for a wide range of applications including self-adhesive labels and unsupported films for sachets and pouches
- Overprintable with thermal transfer ribbons and cold foil adhesives
- Good hot foiling properties
- Dedicated Pantone® formulation matching system
- A range of Flexo sleeve whites for shrink sleeve applications
- Faster curing black JD005 for higher volume aniloxes. Suitable for process printing and solids

Sericol Supernova White

UV cured flexo ink

Flexo Supernova Whites are ultra-opaque flexo whites that can be used as an alternative to a rotary screen white. The best results are achieved using Flexo Supernova Whites in conjunction with HOW anilox technology. This combination gives good opacity together with high quality text. However, other high volume technology anilox are available.

In addition to the process improvements, there are significant cost advantages that can be realised by switching from rotary screen to flexo printing.

Key features:

- Outstanding opacity comparable to rotary screen
- Prints dense solids and text
- Excellent overprinting and trapping properties with most inks
- Performance is optimised for high volume anilox rolls
- Exceptional adhesion
- Fast cure response
- Can be used in conjunction with JD colours for High Opacity Colours

Sericol Flexo JJ

LED UV cured flexo inks

Sericol Flexo JJ is an ultra-fast cured, high gloss LED UV flexo ink system incorporating a range of colours, process inks, metallic shades and specialist products.

The exceptionally fast cure speed of Flexo JJ enables a wide range of anilox volumes to be used, which allows for deeper more saturated colours in the final print.

Flexo JJ is designed for use with Fujifilm's LED UV curing system, but is also compatible with most other available LED UV curing systems

Key features:

- Low viscosity press ready colours, with high colour density
- Similar colour characteristics to the Sericol Flexo JD UV curing ink range
- Adhesion to a wide range of synthetic substrates Including top coated PE & PP, PVC, PET, some thermal papers, metallised foils and most commonly available papers
- Suitable for a wide range of applications including self-adhesive labels and unsupported films for sachets and pouches
- Over printable with thermal transfer ribbons and cold foil adhesives
- Good hot foiling properties
- Dedicated Pantone® formulation matching system

Sericol Flexo Sleeve Whites

UV cured flexo ink

Flexo Sleeve Whites are formulated to meet the high demands of sleeve conversion and application lines. These products have been developed in conjunction with sleeve conversion partners to give the optimum slip and durability required in modern application lines.

Because JDSW Sleeve Whites contain slip additives, they are only recommended for sub-surface printing for sleeves and wrap around labels, and are not readily over-printable.

Slip will be related to ink film-weight and cure conditions, but typically coefficients of static slip of 0.15 are attainable, depending on the version printed. Slip values are measured using an incline plane tester or mechanical friction tester, with prints in contact face to face.

Relative cure can be tested by solvent resistance using MEK. It is important to ensure that inks are fully cured to eliminate problems with application and shrink, during sleeve conversion.

Key features:

- Excellent opacity
- High slip
- Excellent scratch and scuff resistance
- Fast cure response
- Excellent shrink properties
- Excellent adhesion properties

Digital solutions

Fujifilm's heritage and expertise in digital inkjet technology needs little introduction, but the detail of how this is being applied for packaging applications is less well known. Fujifilm has been a pioneer in inkjet technology since the late 1990s, with multiple solutions for wide format, commercial print and labels and packaging.

In addition, our newly launched Revoria range of digital presses is built on a 60 year legacy of technological excellence in toner research, development and manufacturing, within our Fujifilm Business Innovation division.

Imprinting
solutions

Fujifilm's imprinting solutions allow digital inkjet printing to be integrated directly onto existing analogue production lines for a broad range of printing and industrial applications.

Industry-leading
technologies

Fujifilm is unique in that it is a company that has developed its own industry leading core inkjet technologies, and added the ability to integrate these technologies into existing processes. This means that Fujifilm's printhead designers, ink technologists and integration specialists work together to ensure optimum system performance and reliability for the required application, and once built, are able to take ownership of the complete solution.

Fujifilm can therefore provide all components necessary to successfully integrate a digital solution into an existing production line:

• Printhead & printbar design

• Inks & substrates

• Electronics & software

• Print systems

• Transport systems (web and sheet)

What also sets Fujifilm apart are the industry leading printheads and ink at the heart of the company's imprinting solutions. Samba printheads are found in many of the industry's leading digital printing systems, as they combine the very highest quality, productivity and reliability, with the flexibility to be used with a variety of different inks and fluids. Fujifilm has now built these printheads into a number of scalable printbar configurations which, when combined with UV or aqueous ink technologies, result in best-in-class imprinting solutions.
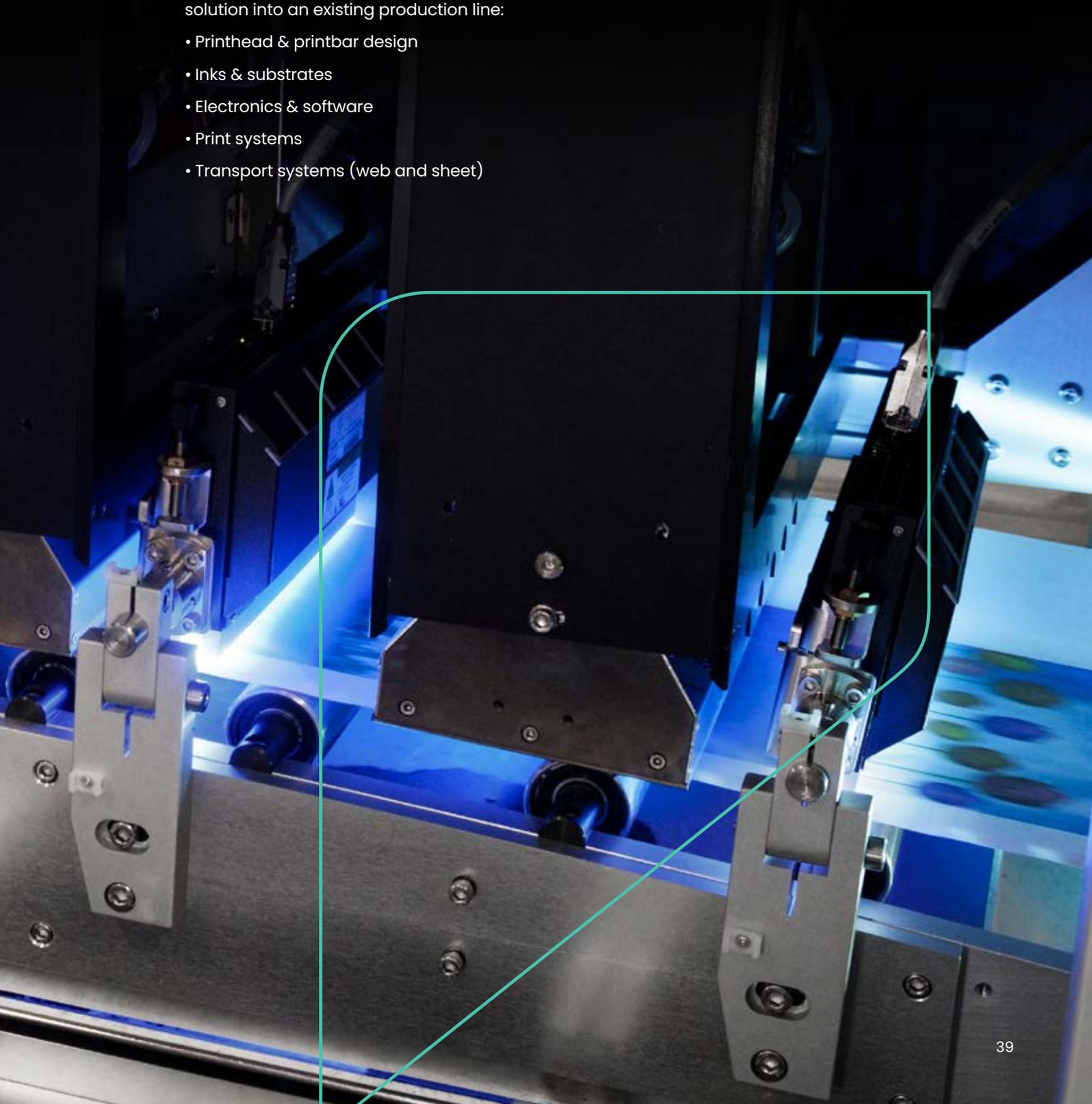
Scalable architecture design

Fujifilm's Samba technology platform is based on a scalable architecture design, so the print width can be configured to meet the needs of a particular application.

Due to the trapezoidal design of Samba printheads, scaling the printbar width is achieved with no compromise to quality, and results in a very efficient system design. In addition, the scalable system architecture means integrated components, electronic systems and software can all be scaled to create a system for the print width and colour channels required.

From single printhead to complex multi-channel configuration

Printbar configurations can be scaled from a single printhead, single colour system for coding, language changes or simple promotional versioning, to a printbar system with multiple printheads for the printing of full colour images over wider print areas.

Wide ranging Samba printbar portfolio for any print width in 40 mm increments

- Monochrome, spot colour, process colours

- Imprinting lanes or full digital print

- Digitise existing analogue assets
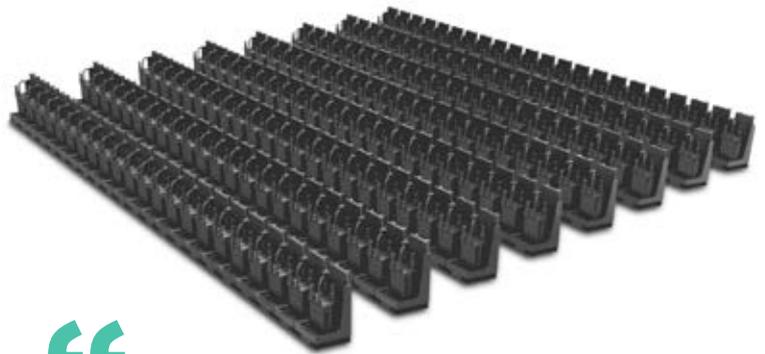
" Due to Fujifilm's unique data processing architecture, the print width and number of printbars can increase to massive scales for industrial production.**"**
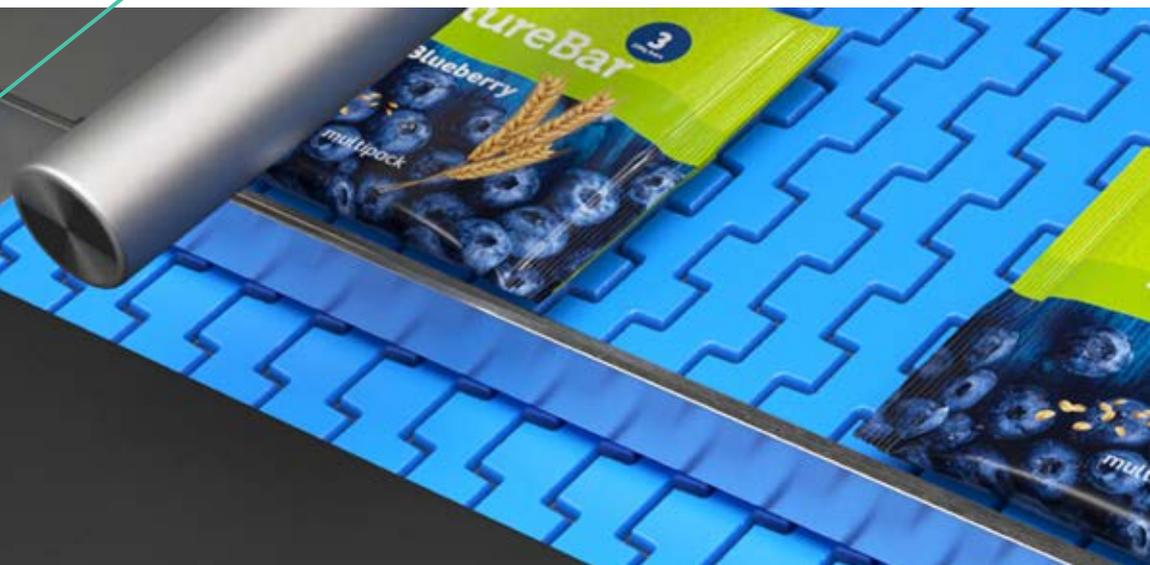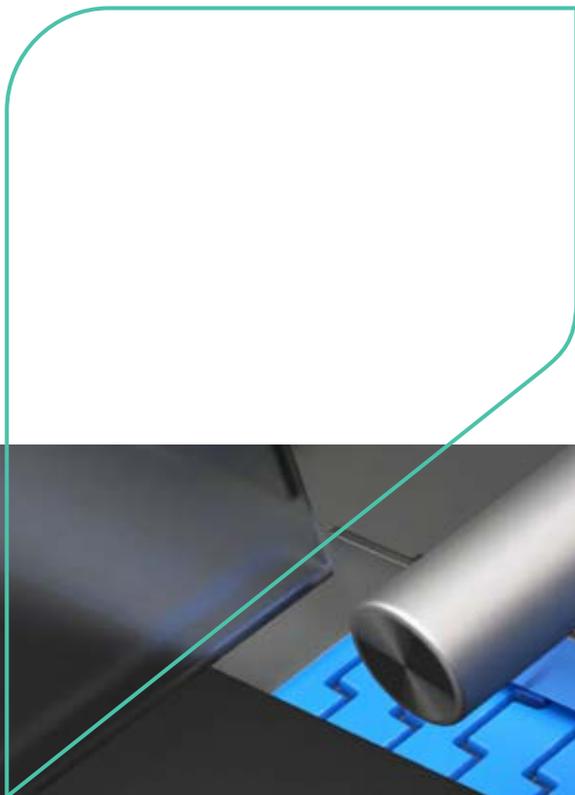
From a single printhead configuration...

Easily scalable

...to complex multi-channel configurations

Samba printhead. Not visible to the naked eye, 2048 nozzles are contained in the silver coloured silicon chip which measures just 44 mm wide by 18 mm deep.
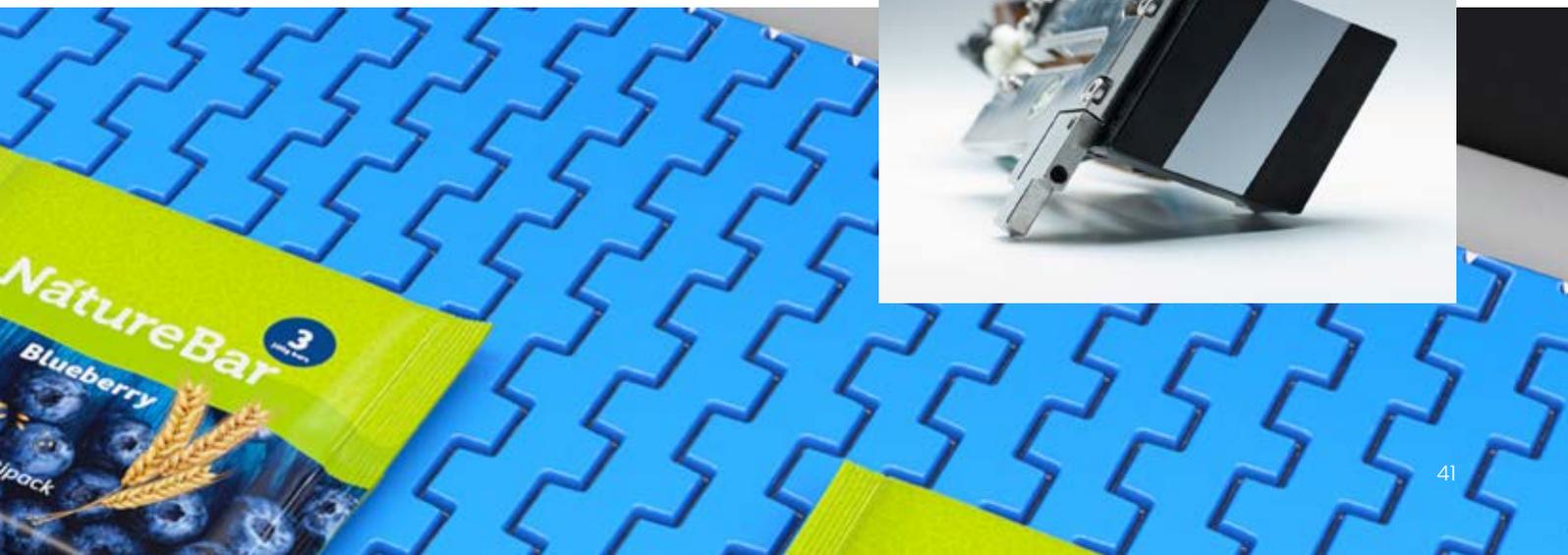
Opportunities for inkjet to complement existing production processes

The Fujifilm imprinting range comprises a number of different scalable printbar solutions and formats, combined with a variety of different ink types. This means that there are opportunities for Fujifilm's imprinting solutions to be integrated onto many different types of production equipment, whatever the format.

1. Package converting in a web process

2. Package converting in a sheet process
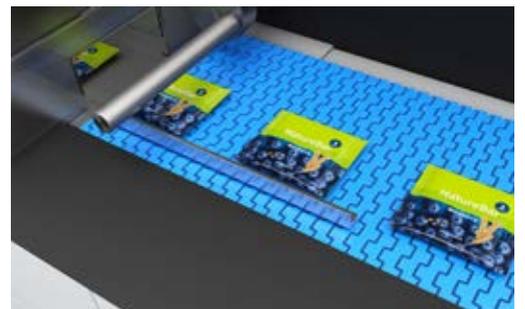
3. Late stage packaging

Applications

The wide variety of Fujifilm imprinting solutions makes it possible for many different applications to be enhanced by digital inkjet, from direct mail and transactional applications in commercial printing, to label, packaging and industrial production processes.

1. Direct mail

2. Commercial

3. Direct to food

4. Packaging

5. Industrial

6. Transactional

Enhanced by inkjet

Key features

- Single pass inkjet imprinting system
- Each printbar contains a single 1.6" width printhead (40 mm)
- Up to 4 printbars per system
- 1200 dpi native resolution
- Speeds up to 1000 feet per minute
- Monochrome, Spot colour or 4 colour
- Aqueous & UV

Mini 4300 Series: versatile printbar system

The Mini 4300 has speed, performance and consistency in a compact form. This enables the incorporation of digital printing into an ever-expanding number of new applications and challenging conditions for equipment integration.

Key features

- Add 4-colour variable print to existing equipment
- Compact for ease of integration
- Does not require printbar refurbishment
- Fast startup
- 1200 dpi or speeds of up to 300 m per minute
- Each printbar is small enough to be removed by hand for servicing or storage

12K Printbar: compact printbar system

The 12K Printbar System puts 4 colour inkjet printing technology into an all-new condensed form. It supports use where space is limited, such as integrating into existing production equipment.
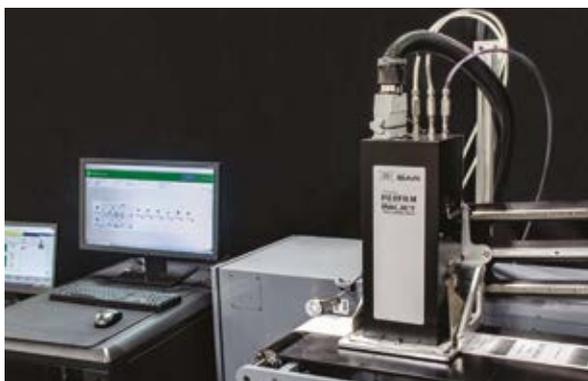
Key features

- Lane printing with 4.5" and 9" print width offerings
- Controller capable of running X-BAR and some existing legacy printers
- Workflow based on IJPDS page description language
- Familiar user interface to support transition from legacy technology
- Modular fluid management for future expansion
- No refurbishment needed

X-BAR: drop-in imprinting solution

The X-BAR brings digital, variable data printing such as barcodes, text elements, logos and more, to conventional analogue presses.
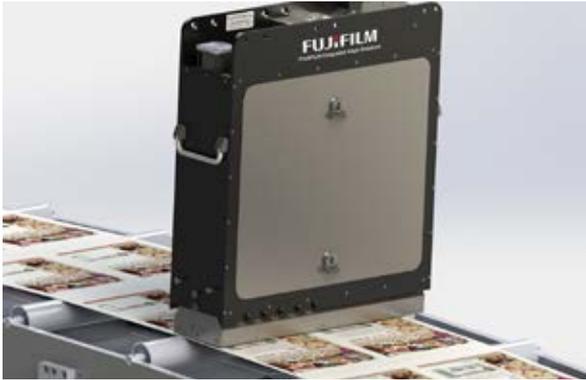
Key features

- Modular design to meet typical press widths
- Pre aligned to eliminate stitching
- Options for monochrome, spot and process color printing
- Configurable software with Fujifilm supplied workflow or connect to an existing customer workflow
- Imprint or full digital print capability
- No refurbishment needed

42K Printbar: scalable printbar system

The 42K Printbar System is designed to add variable data printing to your conventional press in any print width needed, and is able to span the media from edge to edge.

Key features

- Application independent precision transport system
- Computer controlled servo motors can be operated by touch pad
- Easy integration of upstream or downstream systems
- TransJet transport system can be operated with a single, consolidated user interface
- Individual adjustable web tension enables processing of thin and thick substrates (up to 300g/m^2)

TransJet R Series: reel-to-reel transport systems

The TransJet R reel-to-reel high speed transport system is a precise and application independent solution for digital printing. It enables easy integration of upstream or downstream processes such as unwinders, rewinders, or cutting lines over existing controllers.

Key features

The TransJet STS transport system consists primarily of the following modules, and is an interface to standard finishing systems:

- Flat pile feeder
- Round table feeder
- Vacuum-belt-table
- Reject gate
- Delivery conveyor or stacker

TransJet STS Series: sheet-to-sheet transport systems

The TransJet STS sheet-to-sheet high speed transport system is designed for digital printing, sheet separation, inspection, sorting and stacking. It accommodates easy integration of process-related functionalities such as inkjet system, camera supervision, laser microperforation, and other aggregates on demand.

Jet Press 750S
High Speed Model

Delivering exceptionally consistent, high quality output on carton board or synthetic media, the Jet Press 750S High Speed Model meets the needs of brand owners and specifiers looking to reduce stockholdings, optimise supply chains and produce customised packaging in much shorter and more frequent runs. In fact, around one third of all current European Jet Press customers already produce some form of packaging on the press. Capable of speeds up to 5,400 B2 sheets per hour and variable data printing at full speed, the Jet Press is ideally suited to print versioned, short run packaging material to coincide with specific events, localities or store promotions.

Consistent,
high quality

Support for heavier weight folding carton stock

As an option, the Jet Press can be modified to accommodate heavier weight folding carton stock from 0.2 – 0.6 mm in thickness. This makes it ideal to print short run packaging applications.

In addition, the High Capacity option means an additional 300 mm of stock can be fed and delivered by the press without intervention. This is equivalent to an extra 1000 sheets of 300µm folding carton board compared to the standard Jet Press 750S, expanding the capacity for non-stop running for folding carton converters by 37%.

Finishing solutions

Jet Press printed sheets have been tested and found to be compatible with a wide range of analogue and digital coating, foiling, lamination and cutting solutions. An automatic bridge is also available to connect to online coating solutions.

Food safe ink

Fujifilm is able to offer a food safe ink for use on the Jet Press 750S Standard Model, making it the first B2 digital press approved to print primary food packaging. This new, low migration, aqueous food safe ink complies with stringent primary food contact regulations, including Swiss Ordinance 817.023.21 and European Commission Regulation 1935/2004, and has been specially formulated to work with inline (via a bridge) and nearline UV or aqueous coatings.

Spot colour capability and XMF ColorPath Brand Color Optimiser

One of the key advantages of the Jet Press in High Quality mode is its enhanced colour gamut that allows more spot colours to be printed with just four CMYK inks, without the expense of special inks or toners to boost the colour. This makes it ideal for the production of folding carton packaging. In addition, via a simple calibration process within Fujifilm's XMF ColorPath Brand Colour Optimiser module, it is possible to profile the entire Pantone library for any chosen media type to ensure that every Pantone colour will be printed as accurately as possible.

What is unique to Brand Color Optimiser is the ability to see how accurately a Pantone colour will be printed within a specific delta E variance, before actually printing. This means decisions about printing a specific job can be made up front, and no time is wasted trying to achieve what is not possible.

> **As a packaging business, sustainability is at the forefront of our customers' minds. With our Fujifilm Jet Press investments, we make significant savings on waste, downtime, and consumables, helping us and our customers to contribute to a more circular economy."**

German Brodbeck, CEO, Ebro Color

A fourth generation press engineered to
produce high quality print all day, every day

The Jet Press 750S High Speed Model has been built to produce high quality print all day, every day. The benefits of an offset paper handling system are obvious, and take advantage of technology that has evolved over many years to be ultra-reliable. But there are also many improvements in the Jet Press detailed on this page that improve quality even further, improve variable data handling, speed up job downloads, reduce the necessity for system downtime and minimise breaks in production due to press maintenance.
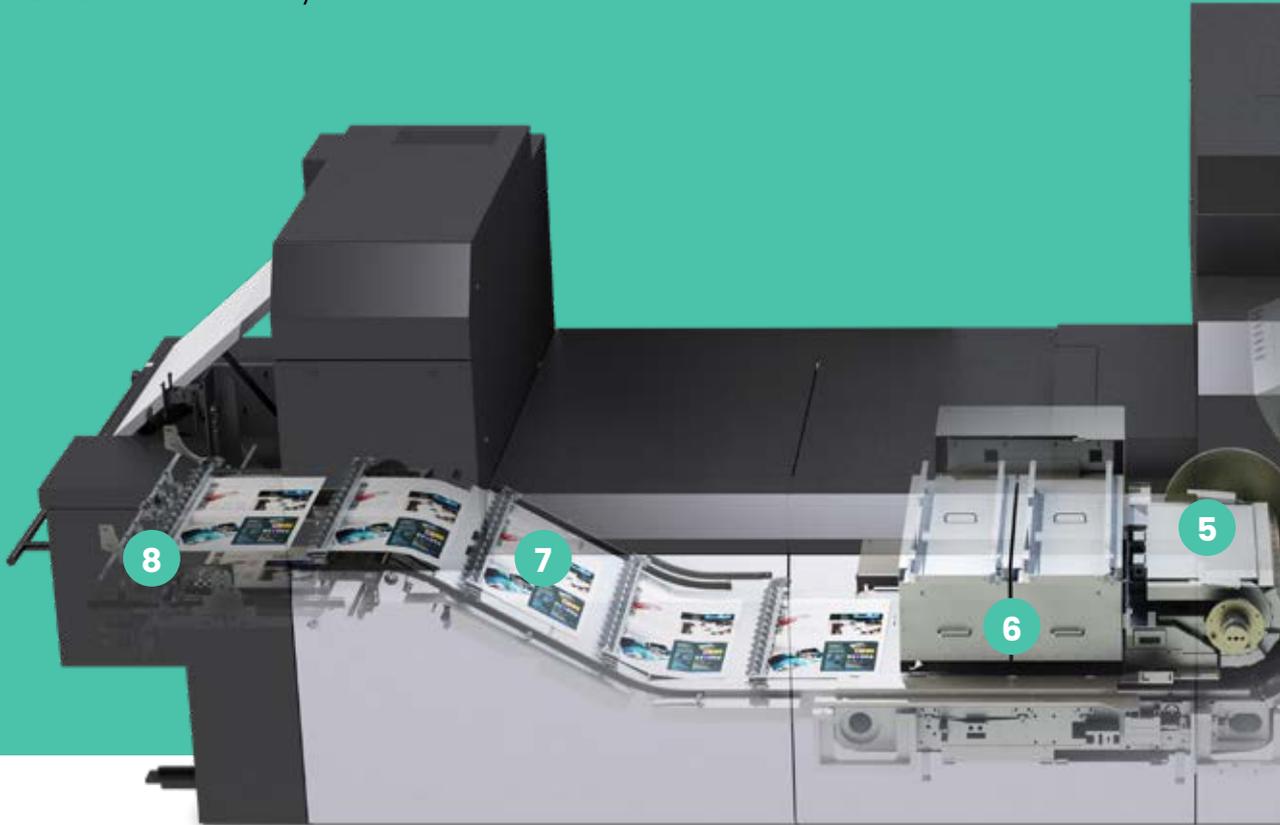
Sheet stacking

The final printed sheet emerges in the delivery area in the same way as a traditional offset press. The non-stop running capacity can be expanded with the High Capacity option.

Paper cooling

Before the sheets leave the press, they pass under a bank of fans designed to optimise the sheet temperature and ink drying performance.

Optimised drying system

The drying system features a transport belt heated via rollers, with a vacuum applied to the sheet as it passes through this section. Drying is carried out via the heated belt and hot air applied from above. The vacuum ensures the heat is applied uniformly, keeping the sheet stable, and optimising the drying process.
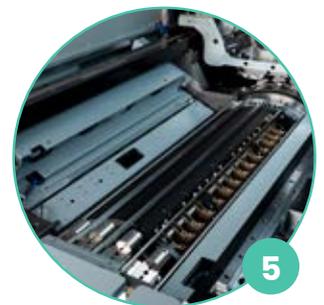
Nozzle correction

Every sheet is scanned by the In-Line Sensor (ILS) with the system making any necessary alterations in real time. The system is mounted just after printing to ensure any adjustments are applied dynamically throughout the run.

Ultra-high capacity data servers

The servers are capable of transmitting variable data alongside printed output, facilitating efficient variable data production at the full press speed of 5,400 sheets per hour.

New Samba printheads

The paper is fed onto the imaging cylinder where it is held by grippers and a vacuum, and four Samba print bars deposit the CMYK inks in a single pass. The unique vacuum system significantly enhances print quality and consistency.

Paper priming

The primer unit applies an ultra-thin film Rapid Coagulation Primer onto the paper via an anilox roller mechanism (in High Quality mode). The reaction of the primer and the water-based ink produces incredibly sharp dots and vibrant images on standard B2 coated paper.
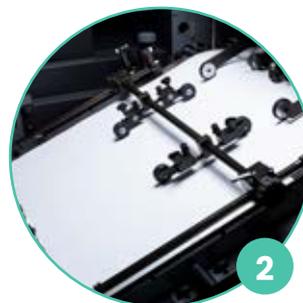
Variable data scanning

To handle double sided variable data applications, a barcode is printed in the non-image area of every sheet. When the sheet is backed up, the barcode is read and the press downloads the right data for that sheet before printing.

Paper feed

Traditional sheet-fed paper feed mechanism ensures high registration accuracy and reliable operation. The non-stop running capacity can be expanded with the High Capacity option.

Sheets can be easily recycled

The environmental performance of the Jet Press 750S High Speed Model is further enhanced by the ability of sheets printed by the press to be easily recycled. With normal water-based inks, ink pigments can sink into the structure of the paper, making them much more difficult to deink.

The VIVIDIA HS ink pigments used on the Jet Press do not sink into the structure of the paper, making them much easier to remove during the deinking and recycling process. The use of the Rapid Coagulation Primer in High Quality mode enhances deinkability even further.
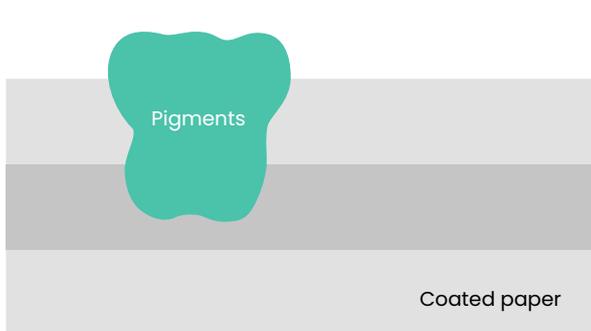
Normal water based inks
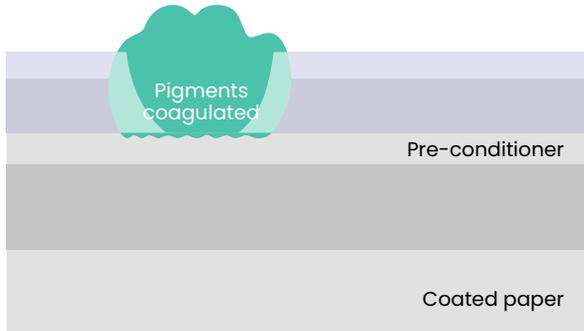
Jet Press in High Quality mode

Score	Evaluation of deinkability
71 to 100 points	Good deinkability
51 to 70 points	Fair deinkability
0 to 50 points	Poor deinkability
Negative: failed to meet at least one threshold	Not suitable for deinking

Printing for the circular economy

The Jet Press 750S High Speed Model is a non-contact printer. In addition to the fact that non-contact printers are less subject to wear and tear, they use far fewer consumables before, during and after the production process compared to a traditional analogue press and there is virtually no waste. This results in a much smaller ecological footprint. As a result, non-contact printing provides an enormous gain for the environment. In contrast to traditional analogue production, non-contact printers do not require the transfer of the image from one surface to another.

Linear economy

Raw materials → Production → Use → Non-recyclable waste

Re-use economy

Raw materials → Production → Use → Non-recyclable waste (Recycling)

Circular economy

Raw materials → Production → Use → Recycling
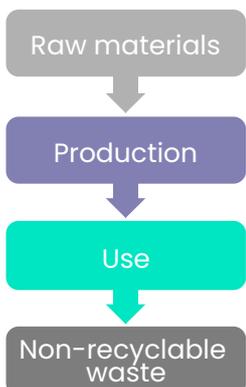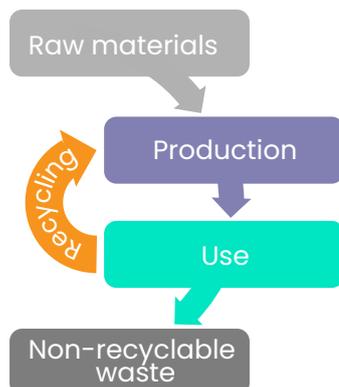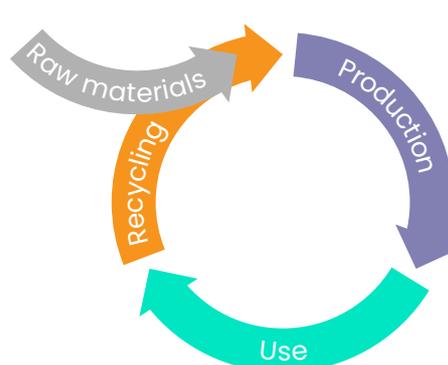
Technical specifications

Jet Press 750S High Speed Model	
Printing	
Printheads	Next generation Samba printheads
Colours	4 colour, CMYK, extended gamut (High Quality mode)
Resolution	1,200 x 1,200 dpi (High Quality and High Value modes) or 1,200 x 600 dpi (High Performance mode), VersaDrop technology with 4 level greyscale
Productivity	Up to 3,600 B2 sheets per hour (High Quality and High Value modes) or 5,400 B2 sheets per hour (High Performance mode), static and variable jobs
Workflow	XMF Workflow V6.x or later, or a third party workflow with XMF Processor
Varable data capability	Yes, thanks to barcode system and high capacity data transfer
Substrate	
Maximum sheet size	750 mm x 585 mm
Printable area	733 mm x 567 mm
Thickness	0.09 mm - 0.34 mm. When configured for heavier, folding carton stocks: 0.2 mm – 0.6 mm
Type	Standard offset coated and uncoated paper, canvas, heavier duty folding carton board, some plastics
Physical	
Dimensions	7.35m (L) x 2.65m (W) x 2.05m (H). The height when cover is open is 2,293 mm
Space requirements	10m x 5.2m x 3m including space for ancillary equipment
Required weight bearing load	More than 2.2 tonnes/square metre
Power requirements	330A/ 200-230VAC
Operating environment	20 – 28ºC, 40 – 60% RH
Inks, Primer and Wash	
Inks, Primer, Wash	VIVIDIA HS CMYK inks (High Speed Model) VIVIDIA CMYK inks (Standard Model) Rapid Coagulation Primer (RCP) Nozzle cleaning wash
Shelf life	2 years under recommended warehouse conditions
Packaging	Inks, RCP and Wash in 10 litre packs
Fujifilm's food safe ink is compliant with the following regulations and standards:	
Compliant with Food Contact Materials - Regulation (EC) 1935/2004	
Compliant with Swiss Ordinance on Materials and Articles in Contact with Food (SR 817.023.21) as listed in annex 2 and 10 (lists A and B) - 01.05.2017 edition	
Independently tested and certified as compliant with Commission Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food	
GMP (Good Manufacturing Practice) is installed and implemented as part of Fujifilm's ISO 9001 Standardintended to come into contact with food	
(EC) No. 1907/2006 (REACH) - no with more than 0,1 weight from appendixes XIV and XVII acc. (Reference date: July 2017)	
Independently tested and certified to be compliant with EN 71-3	
Compliant with Regulation (EU) 528/2012 (Biocide Regulation)	

Revoria
Press PC1120

The Revoria Press PC1120 is a highly flexible, high quality, six colour toner-based digital press that can be used for a wide variety of label and carton packaging applications. The ability to print metallic colours, versatile media handling and superb finishing flexibility, make this press an indispensable tool for label and carton converters.

With an unlimited combination of effects and finishes, the Revoria Press PC1120 is uniquely capable of producing high quality pieces with the quality and consistency required from runs of one to several thousand. Combining multiple versions and colour ways with personalised information is now a reality for the packaging of personal and corporate gifts, adding real value for converters, brands and retailers.

Six colours and enhancements in one pass

In addition to CMYK wide gamut colours, the Revoria Press PC1120 can print combinations of white, silver, gold, clear and even pink enhancements in one pass of the substrate through the press. This opens up a world of creative possibilities for labels and cartons.

Flexible substrate support

The Revoria Press PC1120 is built to handle heavy carton board at 400 gsm, light 52 gsm label stocks and thin papers for lamination and everything in between. The offset-like air suction feeder eliminates feeding issues with challenging materials of all weights and finishes that would otherwise be prone to sticking, even up to 1200 mm in length. Static build-up after printing is reduced with a static eliminator to produce easily manageable stacks of synthetic substrate labels and thin stocks. Printing thinner stocks and pre-glued labels is also helped by the lower running temperature of the press - this is thanks to Fujifilm's Super EA-Eco* toner that fuses with 20% less heat than previous technologies.

Unlimited
creative
possibilities

FUJIFILM

* All toners except white are EA-Eco toners

Effects to optimise
labels & packaging

The Revoria Press PC1120 combines capability and simplicity to help deliver a stunning range of creative print without the inconvenience of workarounds that are likely with other presses. Combine multiple effects and enhancements to achieve more in a single pass. Enhance your productivity, create more value, deliver business growth.
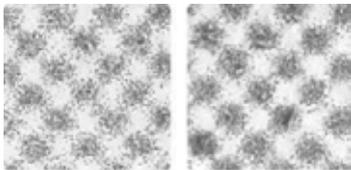

Precision toner for clarity and definition

Super EA-Eco toner* also has one of the smallest toner particle sizes in the world. This makes it possible to reproduce small characters and thin lines more sharply, render halftones and gradients with less graininess, and reproduce dot shapes more faithfully, delivering superior print quality.

Highlights are a clear winner

Pick out names and headlines with clear, perfectly registered clear toner to add an extra dimension to personalised print. Creative use of a clear layer adds a touch of luxury when adding subtle patterns and backgrounds too.
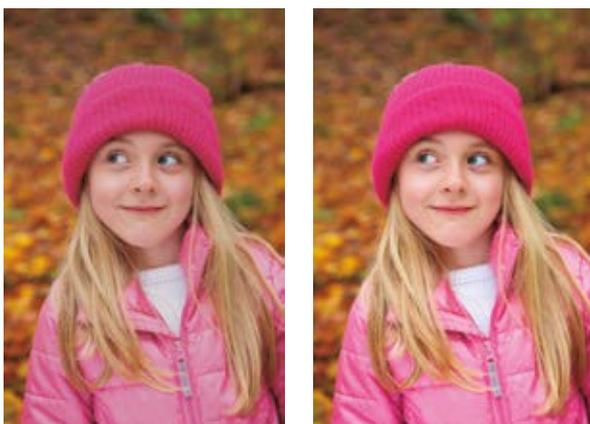

Optimise images with pink

Skin tones of any hue are smoother when you add pink toner to the mix. Fujifilm's AI expertise automatically manages the balance between cyan and pink to give perfect results every time. Pink also adds a wider range of printable colours, increasing the gamut in purple, orange and yellow shades.
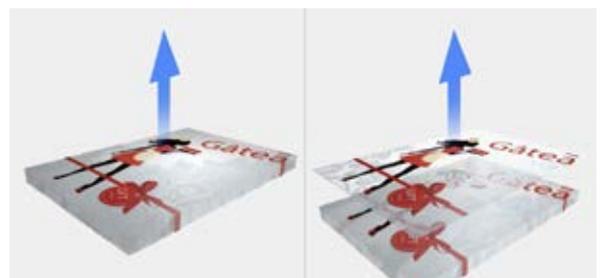
New Static Eliminator module keeps synthetic media moving

Adding white to the Revoria Press PC1120 opens up the potential to print on films for stickers, labels, window graphics and very light stocks. Without the efficient removal of static build up after the fusing process, synthetic sheets can stick together, making them difficult to handle. The new Static Eliminator module makes finishing easier and more reliable, using a two stage process that can be adjusted precisely to suit the media, including some papers, that would otherwise be hard to process.
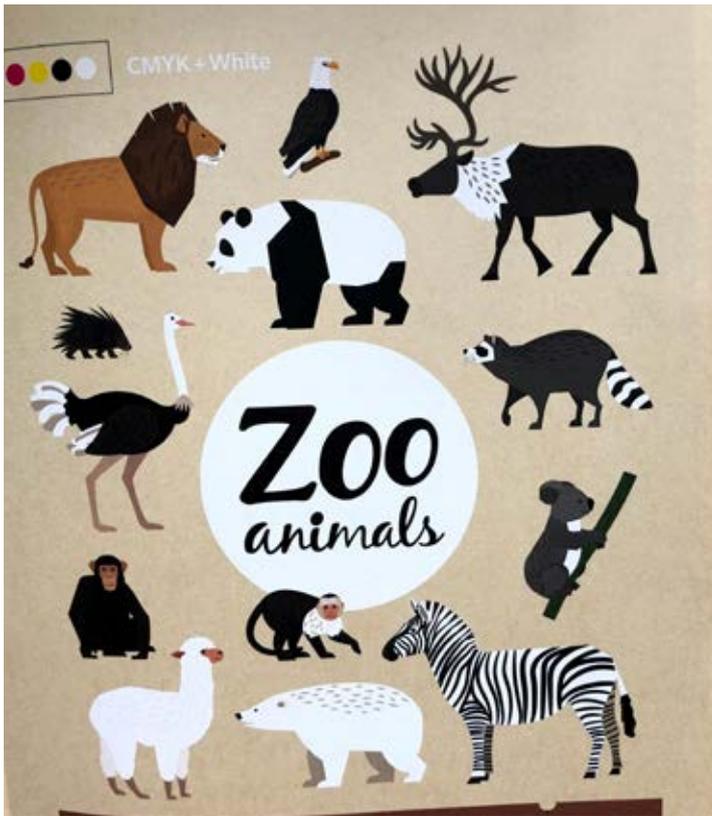
Be brilliant with high opacity white

The Revoria Press PC1120's ability to print high opacity white is essential for window clings, labels and stickers on transparent media and opens up a world of possibilities on darker paper and board.

Silver and gold add to the mix

Metallic toners are not limited to highlights alone. Mix silver and gold with other colours for unlimited combinations and a multitude of new colours.
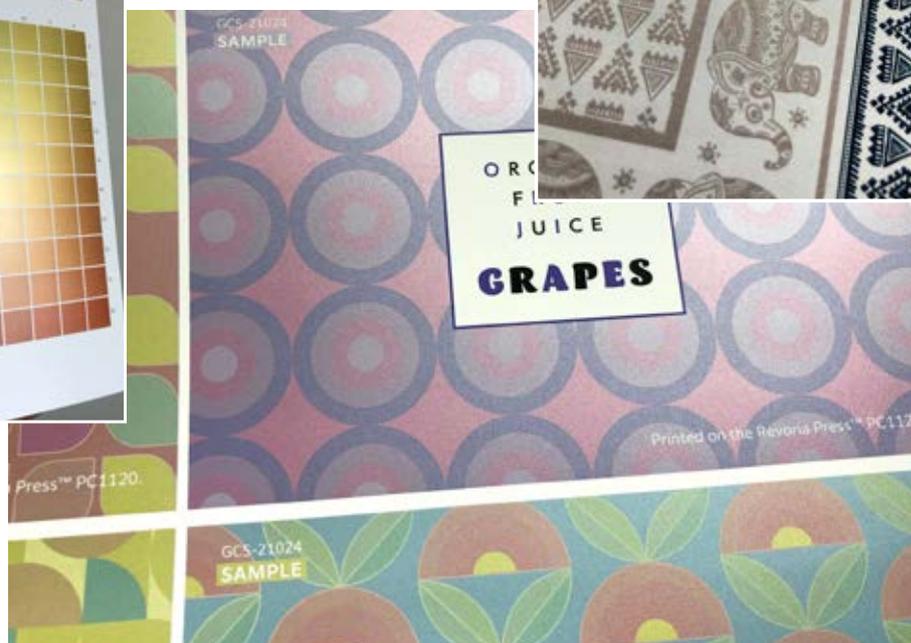
Six colour engine with both
under and overlay

Underlay	
Silver	
Gold	
Pink	
White	

Speciality colour			
C	M	Y	K
Speciality colour			
Paper			

Overlay	
Silver	
Gold	
Pink	
White	
Clear	
Textured paper	
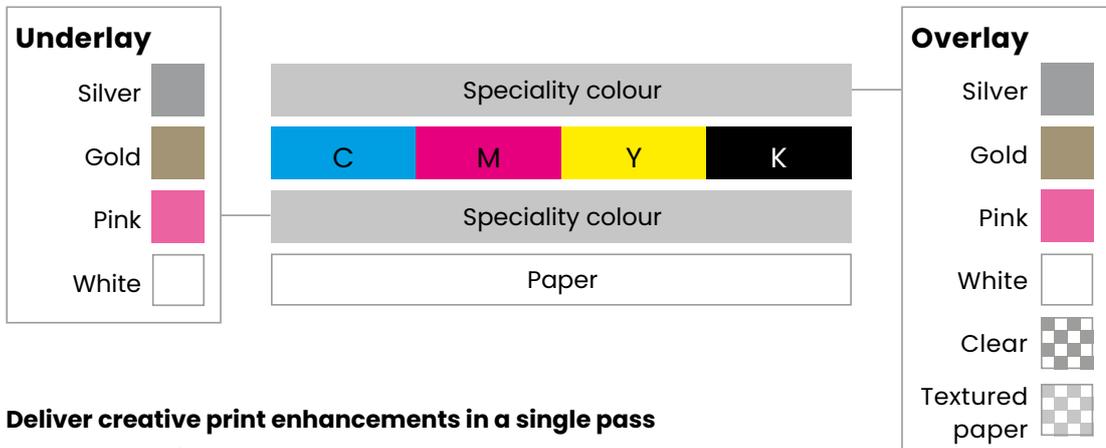
Deliver creative print enhancements in a single pass

A unique set of print embellishments and capabilities make the Revoria Press PC1120 an indispensable tool for label and carton converters. For example, white can be combined with CMYK for printing with impact on metallised and coloured substrates. For clear foils, white can be printed from one or two positions, before and after CMYK and all in one pass. Combine silver or gold with CMYK to access a range of over 500 additional metallic colours. With the addition of a speciality pink toner, the gamut can be increased to match more pantone colours and enhance the appearance of images.

One of these additional print positions can also be used for a treatment that ensures the printed image reaches the depressions and indentations on textured and embossed stocks, extending the range of printable media even further.

Key features

- Industry-leading opacity for speciality colours
- Speciality toners include white, gold, silver, clear, pink, and textured finishes
- Print a speciality toner both before and after CMYK for an infinite number of creative possibilities
- All achieved within a single print pass
- Suitable for folding carton and synthetic media

Full Configuration

Full Configuration: W 10462 x D 1104 x H 1786 mm

Output options

1 Interface Decurler Module D1

Real-time paper curl correction

2 Inserter D1

Cover / sheet insertion

3 Static Eliminator D1

Eliminate static electricity

4 High Capacity Stacker A1

5000-sheet offset-stacking

Single and dual combinations

Stacker cart

Long sheets output

5 Crease/Two-sided Trimmer D2

Two-sided trim | Crease

6 Folder Unit CD2

Z fold half sheet | Tri-fold

7 Finisher D6

Sort / Stack | Stapling

Hole punch*3 | Long sheets output

Finisher D6 with Booklet Maker

Sort / Stack | Stapling

Hole punch*3 | Single fold

Saddle staple | Long sheets output

8 Square Back Fold Trimmer D1

Face trim | Square back

Offset Catch Tray

Offset stack

Long Catch Tray

Long sheets stacking

Feeding options

High Capacity Feeder C3-DS + Multi Sheet Inserter*1

Air assist

Multi-feed detection

2000 sheets x 2 trays+250 sheets
Maximum SRA3, 330 x 488 mm

2nd High Capacity Feeder C1-DS + High Capacity Feeder C3-DS + Multi Sheet Inserter*1

Air assist

Multi-feed detection

2000 sheets x 4 trays
+ 250 sheets
Maximum SRA3,
330 x 488 mm

Air Suction Feeder C1-DS*2

Air suction

Multi-feed detection

2100 sheets x 2 trays + 250 sheets
Maximum SRA3, 330 x 488 mm

Chained Air Suction Feeder C1-DS-L*2 + Chained Air Suction Feeder C1-DS-R

Air suction

Multi-feed detection

2100 sheets x 4 trays
+ 250 sheets
Maximum SRA3,
330 x 488 mm

Air Suction Feeder C1-DSXL*2 + Banner Unit for Air Suction Feeder C1-DSXL

Air suction

Multi-feed detection

Long sheets feeding

800 sheets + 2100 sheets
+ 250 sheets
Maximum 330 x 1200
mm (Upper tray)

Chained Air Suction Feeder C1-DSXL-L*2 + Chained Air Suction Feeder C1-DS-R + Banner Unit for Air Suction Feeder C1-DSXL

Air suction

Multi-feed detection

Long sheets feeding

800 sheets + 2100 sheets
x 3 trays + 250 sheets
Maximum 330 x 1200
mm (Upper tray)

Key specifications	
Productivity	120 ppm even when printing in six colours colours and any paper weight
Colours	Four colour CMYK plus two optional colour stations
Resolution	2400 x 2400 dpi
Media handling	From 52 gsm lightweight to 400 gsm heavyweight board Minimum size 98 x 148 mm. Maximum size 330 x 1200 mm

*1: Multi Sheet Inserter or Multi Sheet Inserter for Banner Print is required.
*2: Multi Sheet Inserter for Banner Print is equipped as standard.
*3: Optional

Jet Press FP790
Digital inkjet press for flexible packaging

In 2011, Fujifilm launched the Jet Press range of inkjet digital production presses to the global commercial printing market. Since that time, Fujifilm has installed more than 300 presses worldwide, with the press having achieved industry acclaim for setting a new standard in print quality, superseding even offset.

Fujifilm is now applying these industry-leading technologies and know-how to flexible packaging. Using its unique expertise in world-class inkjet system development, Fujifilm is now able to offer packaging converters an exceptional opportunity with its new Jet Press FP790 digital platform.

The Jet Press FP790 has been designed to help printers and converters adapt to changing market dynamics that are driving shorter print runs and product life cycles, faster delivery times and more sustainable production, whilst also adhering to the regulatory requirements of flexible packaging.

The Jet Press FP790 digital press could be considered to be three presses in one, able to:

- **Print digitally, with all the benefits of digital production**
- **Print mainstream flexo jobs**
- **Print rotogravure quality jobs**

Mainstream

Suitable for mainstream
flexible packaging

The Jet Press FP790 digital press has been designed to be suitable for mainstream flexible packaging applications, thanks to a number of key features. Firstly, the Jet Press FP790 digital press produces ultra-high print quality, wide gamut print similar to the Jet Press 750S, making it possible to convert analogue flexo and rotogravure jobs to digital.

The press can also run at high productivity levels, with a print speed of 50 m/min irrespective of the ink colours, and very high uptime contributing to the overall performance. Critically, the Jet Press FP790 is also able to fit into existing production processes with no other capital investments, along with being a much more sustainable solution than its analogue counterparts.

High productivity

The maximum substrate width is 790mm (31 inches) with a productivity of 50 m/min (164 feet per minute), no matter the number of colours. The high machine uptime and ability to change printing jobs and design adjustments within a matter of minutes contribute to the overall improvement of production efficiency of the entire factory.

Wide colour gamut and ultra-high quality

Using 1200 X 1200 dpi resolutions with CMYK inks, the Jet Press FP790 can achieve more than 90% of the Pantone® colour gamut, while also using two white ink channels for delivering high white opacity, all achieved with unprecedented colour stability. The wide colour gamut allows converters to achieve special brand and spot colour matching with no need for additional special inks.

A more sustainable print process

Fujifilm employs environmentally friendly water-based primers and inkjet technologies, which meet or exceed all regulatory requirements for flexible packaging printing. The Jet Press FP790 is also able to minimise waste, reduce the number of consumables associated with traditional analogue production, and totally eliminate all elements of the plate-making process.

Comparison of the color gamut of Jet Press FP790
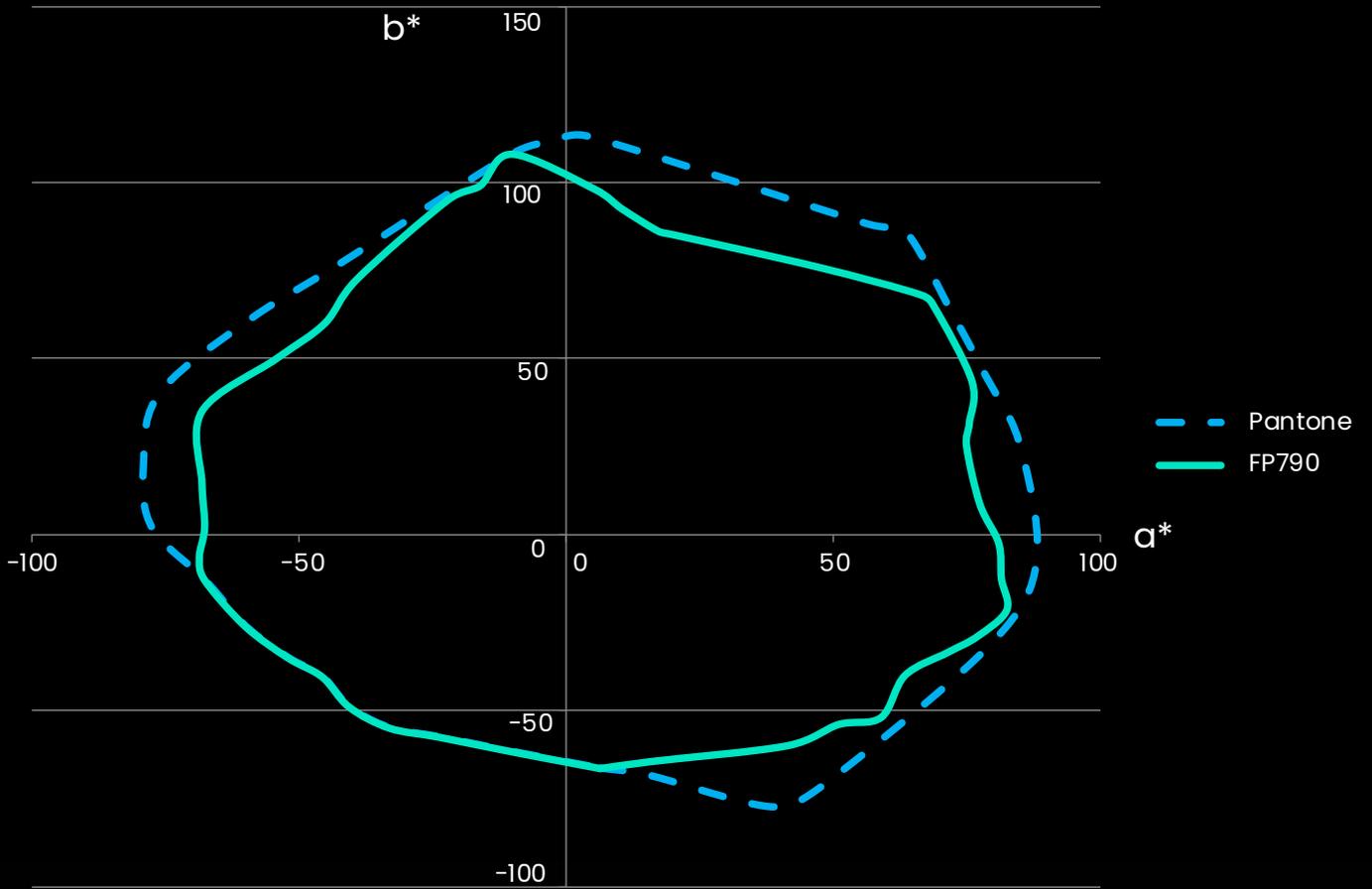
Displayed L*a*b* space in a*b* plane

Automatic register

Controlled within
+/- 0.15mm

**Digital print unit (cmyk)
and drying**

High resolution

New 1200 X 1200 dpi printing
heads enable highest quality
printing. Ability to do heavy
coverage and small type.

Vibrant colour

Colour density is much higher
than existing flexo and digital.
Able to hit 90.5% of Pantone
gamut with CMYK

Water-based priming

Treatment process to
ensure ink adhesion for
different substrates

Unwinder

Inline corona

Creates surface tension
of the substrate for better
wettability, adhesion and
print quality.

**Digital print unit
(ww) and drying**

High opacity digital white.
Two digital white inkjet
channels hitting 55-58%
opacity.

Jet Press FP790
at a glance

Rewinder

Image inspection

Inspection technology in order to ensure print quality, capture defects & reduce waste

Fits existing
production processes

With the challenging demands of the flexible packaging market, particularly the short turnaround times and regulatory requirements, Fujifilm has carried out extensive testing of printed output from the Jet Press FP790 with various laminating, slitting and finishing processes, to ensure customers of the press are in the best possible position to maximise the production opportunities from day one.

Fujifilm extensively tested Henkel's renowned portfolio of laminating adhesives to ensure compatibility with the Jet Press FP790 ink as well as verify adhesion properties and lamination performance in post-press production, to guarantee the highest quality output. Given the excellent results and positive outcomes from these rigorous tests, Henkel's solvent-free laminating adhesives are Fujifilm's recommended solution for use with the Jet Press FP790.

Fujifilm also successfully tested Nordmeccanica's Simplex range of two-layer laminating machines for solvent-less adhesives. The environmental benefits of the Jet Press FP790, combined with Henkel's solvent-free adhesives and Nordmeccanica's solvent-less lamination technology, delivers a truly sustainable production solution. In addition, it will enable packaging converters to remain compliant with the increasingly stringent environmental regulations that are now commonplace throughout the industry.

By collaborating with renowned and leading manufacturers of pre-press and post-press technologies, Fujifilm can clearly demonstrate that its new Jet Press FP790 is fully compatible and integrates effortlessly into existing production environments offering a 'plug and play' digital solution that delivers the highest quality finished packaging with minimal testing, training or setup.

XMF Packaging
powered by HYBRID Software

Fujifilm's Jet Press FP790 will feature a unique smart Digital Front End (DFE) and unified workflow solution developed specifically by HYBRID Software to optimise the productivity and output of Fujifilm's press.

This new XMF Packaging DFE is the first of its kind to be developed by a software company for use in the packaging market, and is a result of a close working partnership between Fujifilm's R&D team and HYBRID's specialist software developers.

Based on proven technology, the web-based, open architecture production workflow offers fully automated pre-press functionality to ensure the Jet Press FP790 press offers accelerated turnaround times, maximum productivity and reduced operating costs. In addition, its modular configuration allows for greater workflow expansion and upstream customisation to cater for specific user requirements.
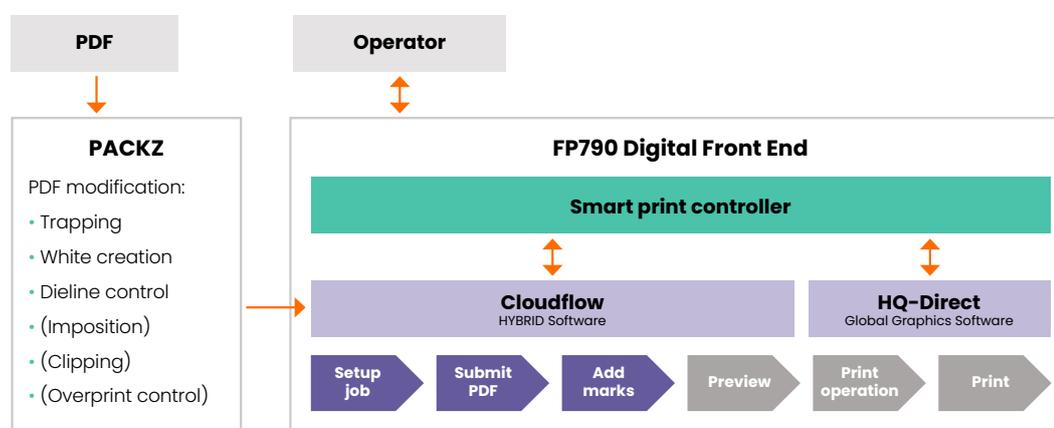
- Maximum productivity for variable contents (on the fly RIP&Print)

- Architecture to flexibly respond to customer requests

- Automation by integration with external systems

PDF

Operator

PACKZ

PDF modification:
- Trapping
- White creation
- Dieline control
- (Imposition)
- (Clipping)
- (Overprint control)

FP790 Digital Front End

Smart print controller

Cloudflow
HYBRID Software

HQ-Direct
Global Graphics Software

Setup job → Submit PDF → Add marks → Preview → Print operation → Print

HYBRID SOFTWARE

Technical specifications

Jet Press FP790	
Printing method	Water-based inkjet, single pass
Print speed	50m/min | 164 fpm - regardless of the number of colors
Image resolution	1,200dpi x 1,200dpi
Maximum image size	733mm, 28,9in
Substrate width	520mm – 790mm, 20,5in – 31in
Substrate thickness	12 to 40 microns
Substrate material	PET, BOPP and most common media's (With preliminary test)
Main application	Flexible packaging for food and non-food, reverse print
Un-winder	Max roll diameter: 600mm, Max roll weight: 200kg
Re-winder	Max roll diameter: 600mm, Max roll weight: 200kg
Dimensions	Width: 12,000mm, Height: 2,400mm, Depth: 2,500mm
Weight	16,500kg
Minimum floor space	16,090mm x 8,060mm incl. auxiliary equipment and work-space
Power-supply voltage	200V and 400V
Ink	Water-based pigmented ink, 5colors FP790-Cyan, Magenta, Yellow, Black and White
Pre-conditioner	Water-based coating liquid

Fujifilm has forged partnerships with a number of leading software suppliers to support its analogue and digital printing solutions.

These include Tilia Labs' Phoenix smart layout solution, designed to help optimise label and packaging production, and CloudFlow and PACKZ from HYBRID Software, which are dedicated DFE and pre-press editing and process automation solutions.
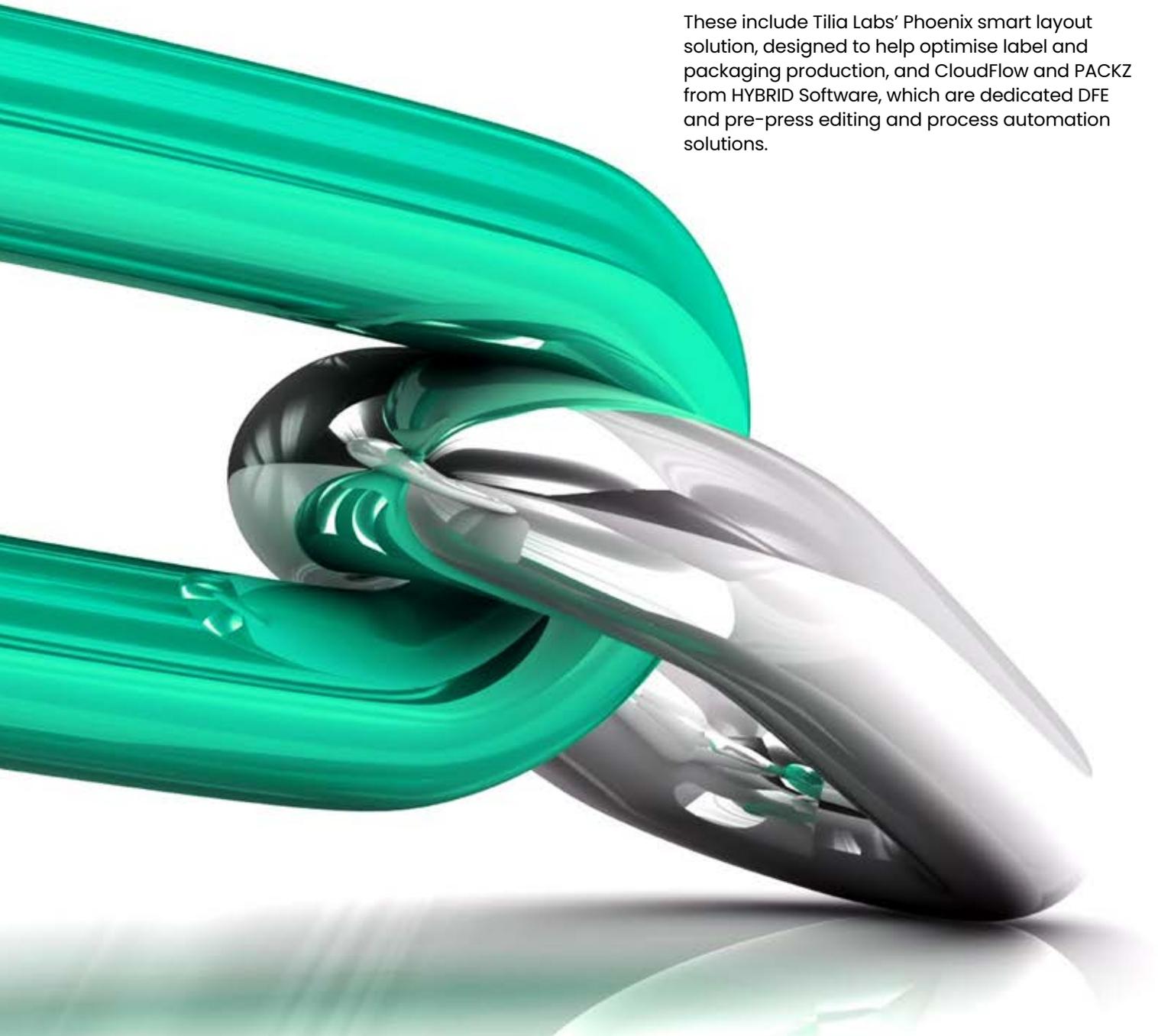
Software
Partnerships

Cloudflow enterprise packaging workflow system

Cloudflow, from Hybrid Software, is a modular production workflow suitable for file processing, asset management, soft proofing and workflow automation. It is a web-based application platform specifically tailored for packaging graphics, with support for PDF, color separation, trapping, screening, proofing and much more. Altogether, the functionality within Cloudflow is open, adaptive, scalable, complete, process-driven and has a flexible licensing model.

Workspace

The foundation for any CLOUDFLOW configuration:

- Web-based
- Central database for all CLOUDFLOW applications
- File and asset management
- Automatic indexing and metadata generation
- User management and permissions
- Workflow engine
- Distributed processing
- Full REST API allows access to all CLOUDFLOW functions

Cockpit

- Process management application for print production of labels and folding cartons
- Job and item properties driven by existing ERP/MIS via standard XML or custom integration
- Includes process and workflow templates for file management, approval, correction cycles, pre-press, and step-and-repeat
- Extensible and fully customizable using CLOUDFLOW´s Pagebuilder HTML editor

Jobs

- Presents job information in a graphical user interface
- Automatic creation of job related folder structure
- Easy search and access to files in existing jobs
- Execution of pre-press and approval tasks based on job info
- Call existing item or job for re-run with same or modified properties

Proofscope

Turnkey solution for soft proofing and collaboration:

- Central proofing & collaboration engine
- Display, check, comment and compare
- View layers, separations & metadata
- Supports PDF, TIFF, PSD, JPG, 1 Bit TIFF
- Also visualizes 3D: Collada, IC3D
- Dynamically configurable in the workflow
- Integrate as viewing tool in apps
- The only requirement: HTML 5 Browser

Packzflow

Pre-press automation based on native PDF files

- Unmatched speed: 64-bit multi-processing and multi-threading
- Full customizable workflows
- Complete set of pre-press functions, such as document preflight and correction, separation handling, barcodes, transformations, trapping, flattening and many more
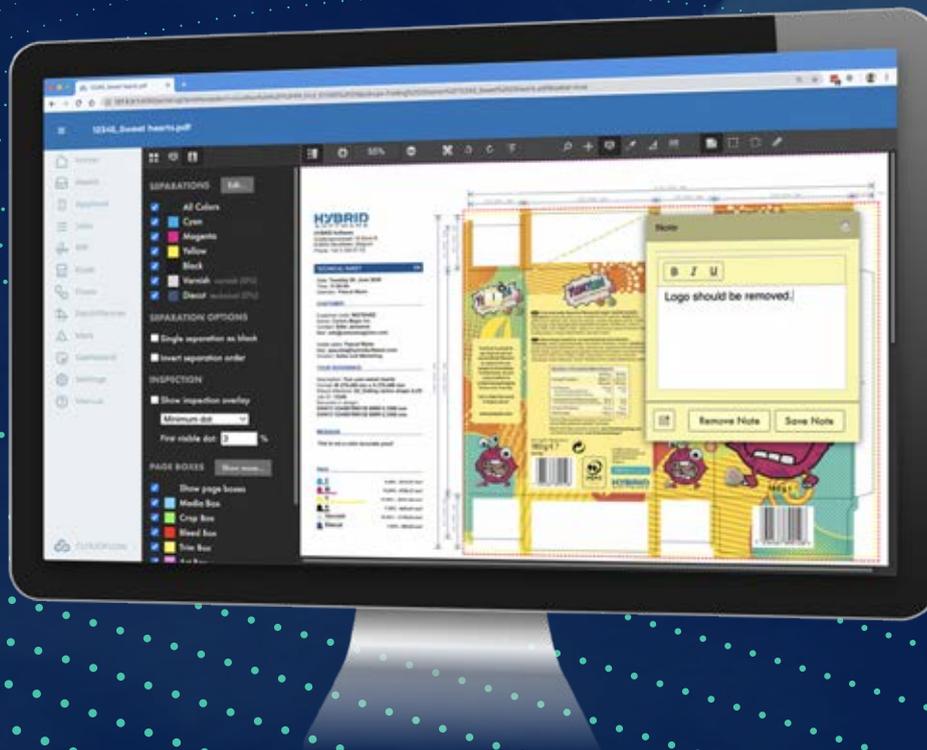
Open, adaptive, scalable

- Advanced Step & Repeat for labels, flexible packaging, folding cartons, spiral wraps, etc.
- Variable data processing
- Creation of job info panels, slug-lines, bearer bars, etc.
- Optional gravure export

Datalink

Connectivity and data collection

- Data exchange with ERP, MIS, W2P, CRM, ...
- Automatic data adjustment
- Status feedback
- Avoids double and incorrect entries
- Extended options for automation
- Universal interface technology
- Ticket formats (XML, JDF, JSON, ...)
- Web service access (REST, SOAP)
- Database communication (SQL)

PACKZ

PACKZ from Hybrid Software is a dedicated pre-press editing and process automation software application for managing PDF artwork for labels and packaging. The suite of tools allows for any given artwork to be checked, and where necessary amended to ensure the PDF is print ready. The PDF files can be enriched to ensure not only is the artwork correct for printing, but by adding dynamic marks or information panels the job will also contain all the required information for finishing.

Trapping is in an important aspect of packaging printing and PACKZ provides a comprehensive range of trapping tools for manually adjusting traps or automatically creating traps within an artwork file. Once the traps have been created, it is also possible to simulate registration errors to see how well the traps would perform should misregistration occur.

Depending on the type of package printing being carried out, PACKZ also contains specialised tools for colour management (including PANTONE and Extended Gamut Printing), managing variable data, step and repeat tools for label printing and the ability to export and re-import elements of a print job to other applications such as Adobe Illustrator.

Once a file has been reviewed and corrected, within PACKZ are an extensive range of quality control tools. Beyond standard PDF preflighting there are tools such as the detection of barcodes, misregistration preview to check trapping efficiency and the accuracy of embellishments and separation views that shows ink opacity. Combined, these tools will ensure every aspect of the artwork is suitable for high quality printing.

All together, the functionality within PACKZ will allow artwork files to be viewed in detail, automatically or manually be corrected, have all required marks added to the artwork and finally be extensively checked and verified with the inbuilt quality control files.
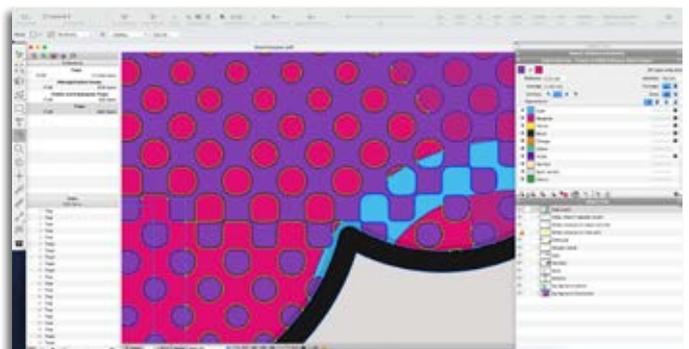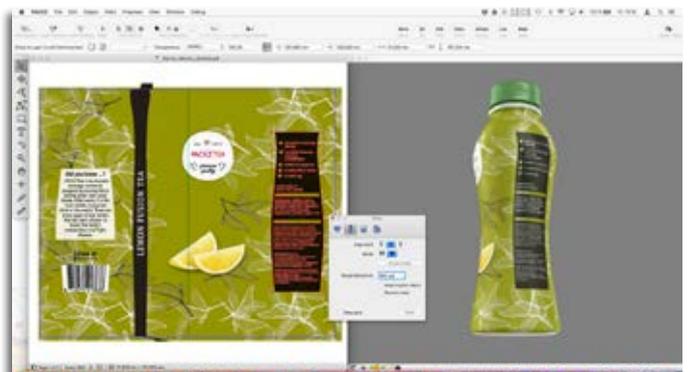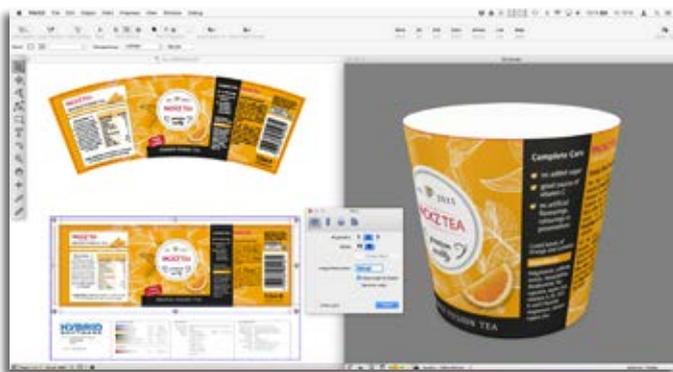
Phoenix

Tilia Labs Phoenix software is an AI-driven, smart layout solution designed to help optimise label and packaging production and reduce waste.

Key features

- Comprehensive impositon AI algorithmns evaluate the most efficient way to run production

- Expansive set of software tools ensure the best performance

- Smarter marks for a smooth flow

- Simple yet efficient modern user interface to reduce clicks

- Intelligent planning rules which can be infinitely extended with a nesting and imposition engine

Intelligent, sophisticated and efficient planning

Phoenix is built from the ground up to cut cost. This is accomplished by generating fast accurate estimates, reducing pre-press time, automating error-prone tasks and maximising media and device usage. Phoenix is designed to model the print company and all the systems used. Some print applications have very specific needs, such as printing labels in print lanes, which can be handled with ease with Phoenix.

Phoenix is tuned to your business

Phoenix plans work in the most efficient way by being tuned to understand the capabilities of the business. This is achieved through inputting details of the production facility into the database which includes technical details about presses, finishing equipment, stock types, and the associated cost of each of these resources.

### Let Phoenix optimise production

Once Phoenix understands the production environment, the imposition AI algorithms will evaluate the most efficient way to produce all the work that is ready for production. However, Phoenix also has the ability to prioritise tasks, allowing the user to specify what is most important to a production run.

Phoenix explores all of the possible methods of ordering the jobs for production, the fastest way to produce the jobs, the most economical way and finally, can organise workloads by due date, delivery postcode and more.

For label and packaging applications, Phoenix will optimise how work is laid out to reduce waste or optimise the finishing process.

Imposition tools built for power production planning

Phoenix began as an imposition solution and has one of the most comprehensive sets of imposition tools on the market with every tool needed to swiftly generate print-ready layouts. Phoenix has smarter tools to quickly build the base imposition but still allows the user to control each item with precise control. Phoenix has evolved to contain an expansive set of software tools to ensure the best performance from the production environment.

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Value from Innovation
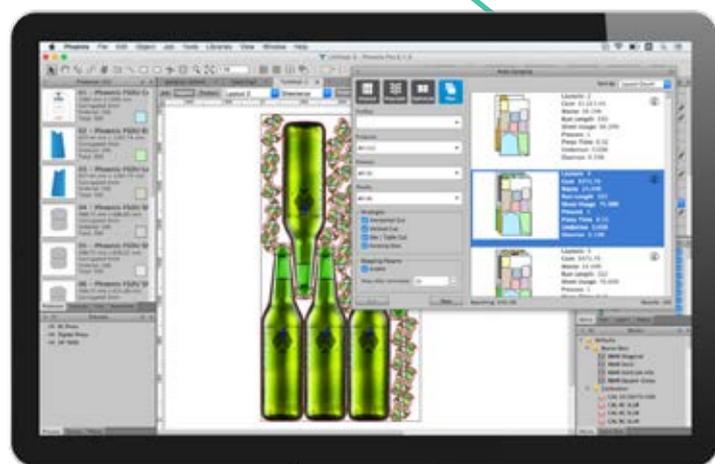
Please contact your local Fujifilm partner or visit:
print-emea.fujifilm.com/label-packaging-sector/

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