



**FL5+FDC**

Carton Production Line Simplified



Edale's 60,000 ft² manufacturing facility in Hampshire, United Kingdom.

**WE ARE ENGINEERS  
OF WORLD-CLASS PRINTING  
AND CONVERTING SOLUTIONS  
FOR THE PACKAGING INDUSTRY**

**WORLD-CLASS TECHNOLOGY, ENDLESS VERSATILITY.**



**IN-HOUSE  
SOFTWARE**



**AFTERCARE  
& SERVICE**



**£6M R&D  
(5 YRS)**



**IN-HOUSE  
DESIGN**



**70%  
ENGINEERS**

With more than 75+ years in the packaging industry Edale has designed and engineered a range of high technology print and converting products to serve the production needs of today's packaging producers. Edale's philosophy is to deliver high levels of process automation combined with exceptional print quality without overcomplicating functionality. Our aim is for the Edale product to be affordable yet to exceed performance expectations on every level.

**We design and engineer tailormade presses for print professionals, designed to excel in every environment, engineered to last.**  
**This has been our mission for over 75 years – We are Edale.**

**Contents page**

WE ARE EDALE	2-3
FL5 + FLATBED DIE CUTTER (FDC)	4-5
WE SOLVED 7 KEY CHALLENGES	6
A HIGHLY PRODUCTIVE CARTON PRODUCTION LINE	7
THE ULTIMATE SINGLE-PASS CARTON PRODUCTION LINE	8
DESIGNED FROM THE GROUND UP	9
FL5 + REEL TO REEL (R2R)	10-11
FL5 + RDC	12-13
FINISHING TECHNOLOGY	14-15
COLD FOILING	14
HOT FOILING STAMPING	14
CAST AND CURE	14
ROTARY DIE CUTTING	14
LAMINATING	14
EMBOSSING/ BRAILLE	15
VARNISH COATING	15
TURNBAR	15
FLATBED DIE CUTTING	15
PRINTING TECHNOLOGIES	15

CHALLENGING PRINT QUALITY STANDARDS	16-17
CUSTOMER QUOTES	18-19
STANDALONE FLAT BED DIE CUTTER - FDC	20-21
STANDALONE FLAT BED DIE CUTTER WITH STACKER - FDC	22-23
ANCILLARIES	24-25
JUMBO REWIND	24
JUMBO UNWIND	24
AUTOMATIC SPLICER & NON-STOP REWIND	25
AUTOMATIC STACKING	25
GLOBAL SERVICE + SUPPORT	26-27
AFTERCARE	27
CONTACT US	28-29
FL5 TECHNICAL SPECIFICATION	30
FDC TECHNICAL SPECIFICATION	31





# FL5 + FDC

## SERVO DRIVEN

Fully servo driven to maintain accurate registration over the full range of substrate thicknesses

## PRE-REGISTER

The pre-register function positions the print cylinders in register before any material is used

## RAIL SYSTEM

The rail system allows for additional options such as laminating, turnbar, foiling and screen to be easily moved between print units

## UNIPRINT

The unique print head geometry ensures consistent high quality print across all repeats with minimal adjustments

## HMI

Job storage and set up from a single point

## FLATBED DIE CUTTER

In-line flatbed die cutter provides traditional cut, crease and emboss quality with minimal setup waste and low tooling costs

## MINIMAL WASTE

Diverging delivery system allows separation of nested carton for easy collection

## JUMBO UNWIND

Jumbo 1500mm (60") fixed unwind or continuous unwind options

## PRINT HEAD AUTOMATION

Motorised control of inking, impression and cross register as standard

## MINIMAL WASTE

Short web path between prints ensures minimum waste

## QUICK COLOUR CHANGE

Colour change achieved in under 60 seconds, with no tools required

## AUTONOMOUS REGISTER

X+Y closed loop register with Edale EZ Register

## DIE CUTTING

Die cutting pre-register system and quick tool change

## AUTO WASTE STRIPPING

Waste removed and chopped, and then discharged onto take away conveyor

**We can support your demand no matter the size of the print run**

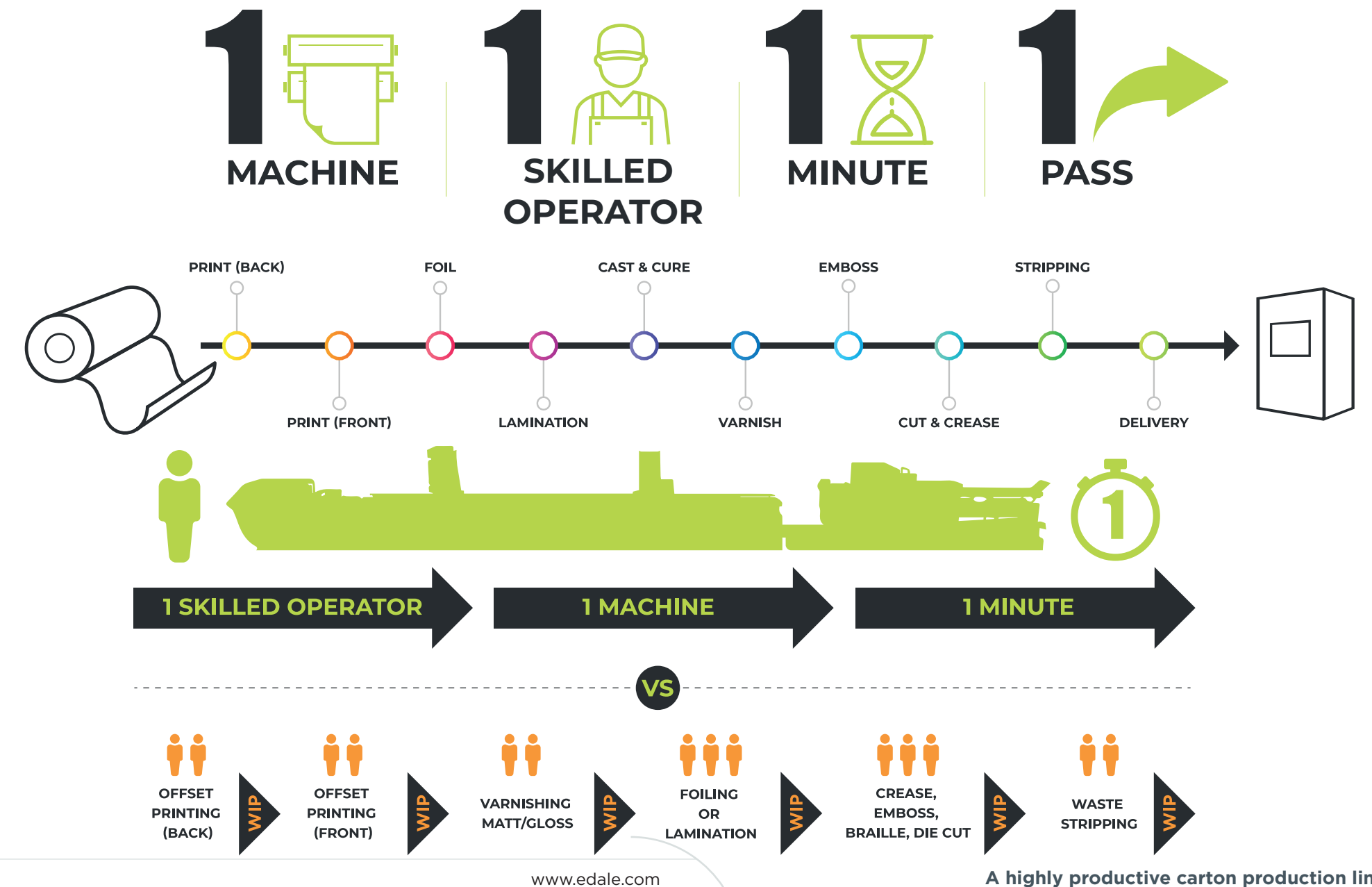
**Short: Lower than 1000 - 100,000**

**Medium: 50,000 - 500,000**

**Long run: +500,000**



The FL5 is a versatile and unbeatable Single-Pass, highly productive Carton Production Line.





# The Ultimate Single-Pass Carton Production Line

**FOR PRINTED, EMBELLISHED, SUSTAINABLE, PAPER-BASED DIE CUT CARTONS.**

This carton has been produced in a Single-Pass using the Edale FL5 CARTON PRODUCTION LINE, 600mm with in-line (FDC) Flatbed Die Cutter.

## COLD FOIL

Has been laminated on the FL5 to give the effect of more costly PET cartons.

## EMBOSSING

is added in-line on the FDC to give a 3D tactile effect.

## UNIQUE UNIPRINT

Print head geometry ensures highest quality

COMBINE, PRINT, CUT, CREASE, BRAILLE EMBOSsing AND WASTE REMOVAL IN A SINGLE-PASS MACHINE WITH THE FL5 CARTON PRODUCTION LINE, IDEAL FOR EMBELLISHED, SUSTAINABLE, PAPER BASED DIE CUT CARTONS.



## AIIR SYSTEM

(Autonomous Inking Impression and Registration) on the FL5 gives unparalleled automation and repeatability of quality and print accuracy.

## CAST & CURE

Has been added to give a finish that adds brand protection and allows the carton to really stand out from other production methods.

## CUT, CREASED & STRIPPED

The carton was finally cut, creased and stripped before being discharged onto a conveyor by the FDC 600.

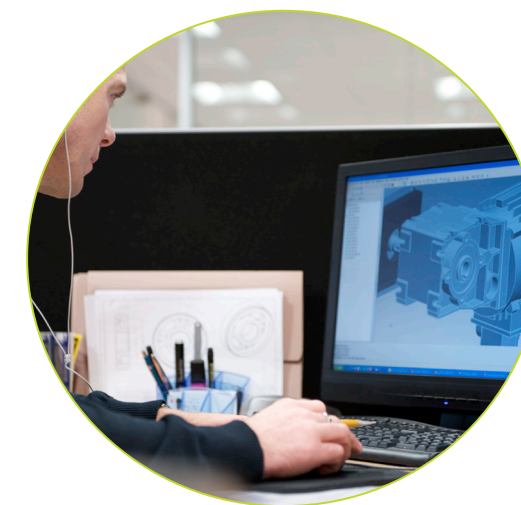
# Designed from the ground up for carton production

Our vision for the future is clear; we will build on and develop new partnerships worldwide and continue to innovate, customise and provide solutions to the printing sector. The FL5 + FDC Single-Pass Carton Production Line is a prime example of this, which has been developed from the ground up and in collaboration with carton producers from around the globe.

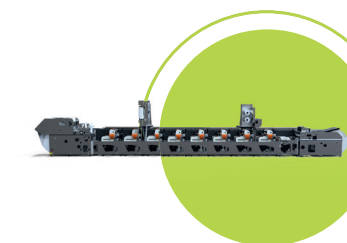


Our in-house team have the engineering expertise and knowledge of the industry and have been an integral part of Edale growth and the evolution of our presses over many years.

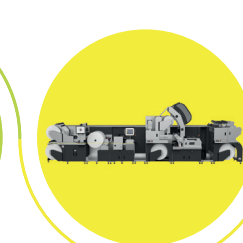
We will continue to keep moving forward, and collaborate with the packaging industry, which often results in ground breaking design and solutions.



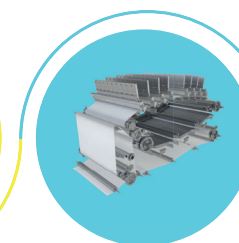
## What we offer



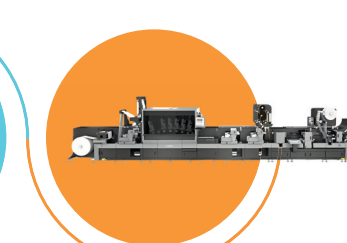
CARTON  
PRESSES



FINISHING &  
CONVERTING



DIGITAL  
WEB



LABEL  
PRESSES

## Growing by innovation

Our growth has been driven by the continued evolution of our range of equipment. Another key factor to our success is our ability to collaborate with major, world-renowned design and manufacturing teams across the world, delivering cutting-edge innovation.

We work with some of the biggest names in the industry, and we are proud of our associations with them and the contributions made by our team. Our FL5 Single-Pass Carton Production Line is multiple award-winning, with the latest Flexography Award from the FTA

(Flexographic Technical Association) 2022, Excellence in Flexography Awards “Registration to be proud of,” said the FTA Judges, whilst awarding another gold award to one of our valued customers.

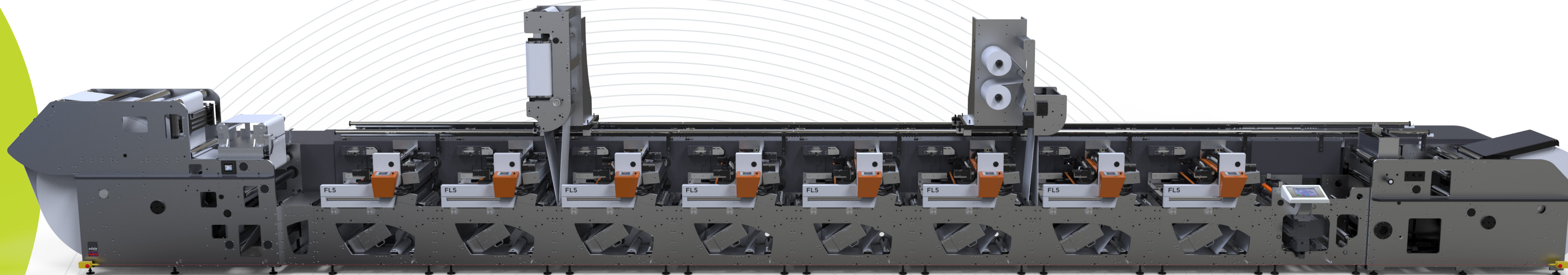




## Reel to Reel (R2R)

**Quick set-up:** Full automation of print parameters allows for a quick and easy set-up

**Advanced job recall:** Motorised adjustment allows all settings to be stored which results in easy job recall and enhanced product repeatability



FL5 Reel to Reel (R2R)

**Flexibility:** Advanced tension control allows many substrates to be run without any mechanical changes



# FL5+RDC

**Greater productivity output:** High speed, high volume, virtually uninterrupted, continuous production



Long run FL5 Carton Production Line with Rotary die-cutter

**Auto Splicing:** The addition of auto splicing allows nonstop running of press which is ideal for long run production

**High-speed:** Rotary die cutting enables high-volume production at speed

High Volume  
Carton  
Production



# Finishing Technology

## Cold Foiling

### Benefits

- No expensive stamping die required
- Rail system enables the Cold Foil module to be moved easily to any print station along the press
- Ink or varnish coating can be applied to give visual effects

## Hot Foil Stamping

### Benefits

- Quality of finish and durability

## Cast and Cure

### Benefits

- Cast & Cure gives a unique finish and creates a stand-out final product

## Rotary Die Cutting

### Benefits

- High-speed die cutting allows highly efficient production on larger order quantities

## Laminating

### Benefits

- Lamination adds durability to the print and strength to the substrate
- Gives a high gloss effect



Cold Foiling

## Embossing/Braille

### Benefits

- Braille for the visually impaired
- Creates a high-end tactile effect
- Creates a unique selling point among competitors

## Varnish Coating

### Benefits

- Protects the printed image and can be finished either as soft touch, tactile, gloss or matte effect

## Turnbar

### Benefits

- Allows front and back printing within the same pass

## Flatbed Die Cutting

### Benefits

- Industry recognised cutting and creasing
- Quick changeover
- Reduces die cost compared to rotary
- Can be used in-line or near-line with all web-fed printing technologies

## Printing Technologies

- Flexographic • Rotary Screen • Gravure • Inkjet



Braille



Cast and Cure



Sample



# Challenging Print Quality Standards

## Quality print every time

Print quality is critical because it directly impacts the final product's appearance, shelf appeal, and customer anticipation of the quality.

In flexographic printing, the quality of the print depends on several factors, including the choice of inks, the substrate, the printing plates' quality, the ink transfer system, and the press's settings. Any issues with these factors can result in poor print quality.

By standardising plate manufacture and design, ink selection and anilox choice, the best prepress solutions can be achieved. Together with the advanced automation offered by the Edale FL5 such as autonomous register, motorisation and job recall for all setting consistency can be achieved with little human interference. This takes away the majority of chances of human error resulting in higher quality end products as standard.



## Why standards matter

Without standards print quality is very subjective, one person's perception of great quality is another's poor quality. By designing the full prepress process with trusted partners, and in conjunction with the press's automation, Edale has managed to give a print quality standard that everyone can achieve.



Water Bottle Label



Wine Label



Wine Carton

# Expanded Colour Gamut



Expanded Colour Gamut or ECG, is a combination of precision press control and reprographic technologies.

Setting up an 8-colour UV flexographic print press enables you to print ECG, by using Black, Magenta, Yellow, Cyan, Green, Orange, Violet and White for a reverse print job, enabling the following:

- Standardise the flexo process - Consistent reproduction to standards.
- Eliminates colour changes - Saving time and ink waste.
- Gang multiple SKU's on the same job - Saves cost and waste.
- Quick to reach colour - Saving time and waste material.
- Efficient production - Maximising output from available time.
- Increase press utilisation - Increase profitability.
- Sustainable - Least damaging print process to the environment.
- Better brighter colours - Wow your customers!

**“Digital performance without all the trouble”**

\*These findings have been verified by Dr. Kai Lankinen, the world-renowned specialist on ECG printing, following international research when running the ECG process. The teams assessment of the Confectionery project is that they achieved similar results.





# Customer Quotes

“

**FTA (Flexographic Technical Association) - Excellence in Flexography Awards 2022**



The multiple award winning FL5 Carton Production Line gives all the benefits of single pass carton production whilst maintaining exceptional print quality and registration.  
\*FTA (Flexographic Technical Association)

**“Registration to be proud of,” said the FTA Judges whilst awarding another gold award to one of our valued customers.**

“

**Steven Haedrich**  
President – New York Label & Box Works - USA



We are very proud to be the first US company to invest in the FL5 flexographic carton press technology.  
This is a ‘game changer’ for us and our customer

“

**Reelvision - UK**



We deliver print quality and consistency of colour matching each and every time.

“

**Andres Kull**  
CEO, Kroonpress - Baltic States



Our investment of our two FL5 carton presses and web fed flatbed die-cutter, FDC-600, will be a great addition to join our existing machinery, which is predominantly offset.  
We went through an extensive process to find the most suitable press, which took quite a while because we’ve been mostly offset printers so far. The Edale solution was the best match for us.

“

**iTek Packz - India**



Our team is immensely proud of what we have achieved. Our aim has always been to provide our customers with the best quality carton products possible.  
We have now received multiple Awards and voted ‘Best in Show’, and an FTA Europe, Diamond Award.

“

**Amitabh Luthra, MD - Printers Supply CO. PVT. LTD**  
We’re causing a disruption in the carton production market, as more businesses are seeing the future and its ‘in-line single-pass carton production’.



“

**Areerat Treepuntupitak, Thai Anbao**  
Previously using several offset presses and outsourcing a lot of production, this was replaced by a single-pass Edale FL5 Flexographic Printing press with rotary die cutting.

This allowed them to better manage the quality of the product and deliver a finished flat cup in a single pass with quality printing, embellishments, die cutting and delivery all on the same machine.

They also now have the colour and quality consistency you get from a flexographic press and thanks to some other upgrades such as a continuous unwind and automation, including 100% print inspection, their production time and waste have been reduced significantly.

“

**Stefano Perachiotti, Commercial Director from Nebigraf Srl**  
“It was good to have the opportunity to show my customer the FL5 Single-Pass Carton Production Line in action at Edale’s customer experience centre at their UK Headquarters. During our visit, we saw first-hand the print efficiency, quality, and ease of use.”





## Standalone Flatbed Die Cutter

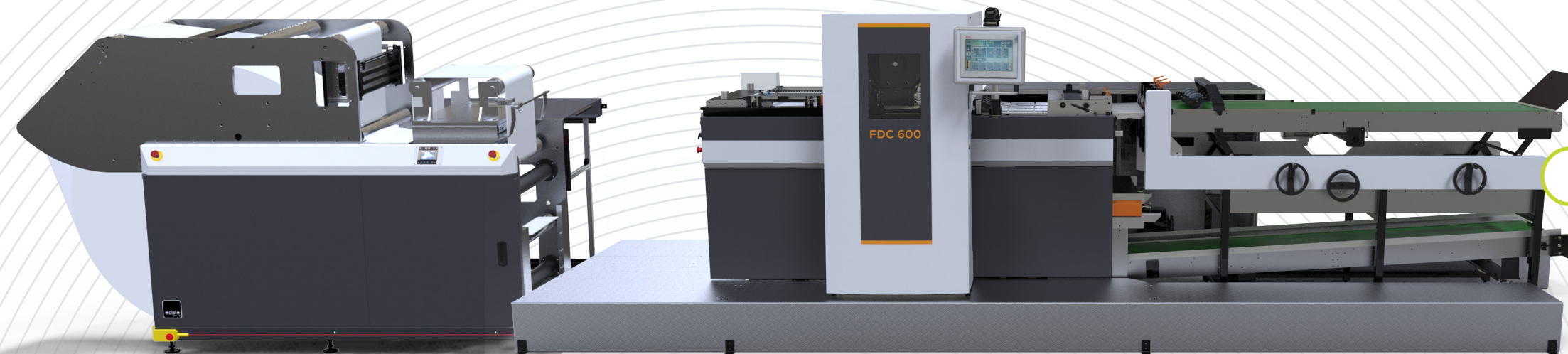
# FDC

**Web-fed Technology:** Reel unwind up to 1.5m Diameter

**Increased Productivity:** The die cut format allows quick and easy die change

**Reduced Cost:** Inexpensive traditional tooling used  
results in industry recognised cut and crease quality

**Flexibility:** Can be run in-line or near-line with most web-fed  
printing processes



Standalone Flatbed Die Cutter

# FDC

**Increased Automation:** Automatic stacking of die cut product

**Greater efficiency:** Reduces the need for manual collection

**Standalone  
Flatbed Die  
Cutter with  
stacker**

Standalone Flatbed Die Cutter with a stacker

**Increased Productivity:** The die cut format allows quick and easy die change

**Flexibility:** Can be run in-line or near-line with most web-fed printing processes



# Ancillaries

## Jumbo Unwind

### Key Features

- Large roll diameters of up to 1525mm (60")
- Web guide with ultrasonic edge sensor
- 3m web buffer interfaces seamlessly with any manufacturer's web press
- Safety chucks and hydraulic lift for secure and safe material loading/unloading
- Servo braked roll with pre-tension
- Splice table at perfect ergonomic location
- Integrated controls



## Jumbo Rewind

### Key Features

- Large roll diameters of up to 1525mm (60")
- Web guide with ultrasonic edge sensor (optional)
- 3m web buffer interfaces seamlessly with any manufacturer's web press (optional)
- Safety chucks and hydraulic lift for secure and safe material unloading
- Servo braked roll with pre-tension
- Integrated controls
- Bow roller allows individual slit lanes to be wound onto a single mandrel
- Range of mandrel sizes available

## Non-Stop Unwind

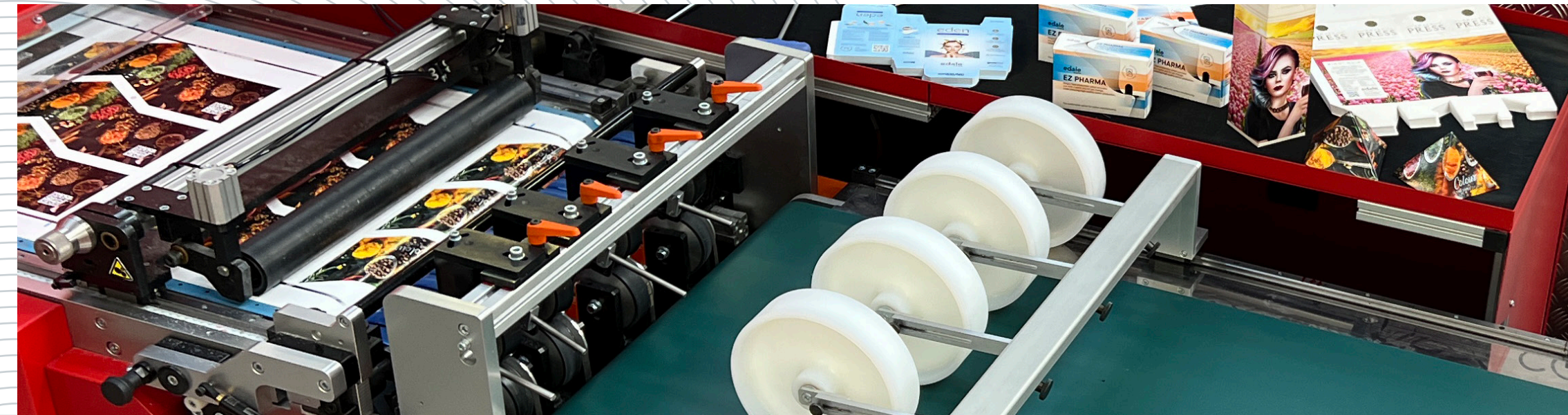
The benefits of automatic splicing and non-stop unwinding add up to significantly:

- Increased productivity
- Greater quality control
- Reduced waste



## Automatic Stacking

- Independently driven take-off conveyor with variable speed control
- Accelerates and separates products after cutting
- 1800mm / 6' conveyor with variable speed
- Digital batch counting controlled by HMI
- Delivery and conveyor settings stored within the job sheet
- Wheel-mounted to aid removal and storage





## WORLDWIDE SUPPORT GLOBAL PRESENCE



**WE COVER 5 CONTINENTS AND EXPORT 80% OF OUR PRESSES.**

We have wide-reaching worldwide Service and Sales Hubs

Edale's headquarters and manufacturing facility is based on the South Coast of the UK.

Our products are sold and supported across the globe via an extensive network of distributors and agents.

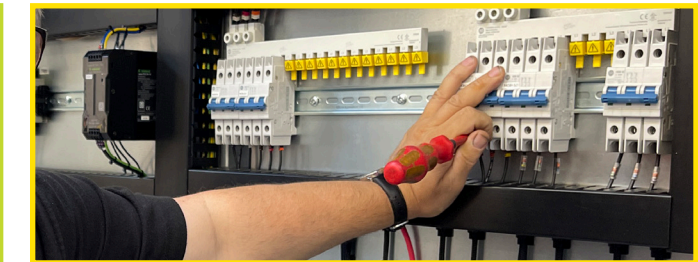
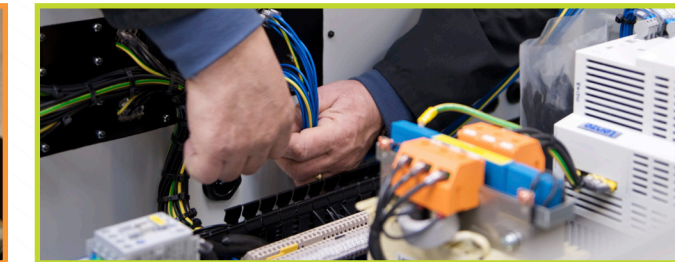
## Edale Global Service & Support

We offer the latest printing technology and with it comes our experienced and dedicated service and support network. From initial consultation, to installation and beyond, our After Sales team ensure that our customers investments are protected at all stages of life.

Every machine is installed by our own highly trained engineers and is supplied with a choice of training packages to suit your business needs.

In addition to a comprehensive spare parts and consumables service, a wide range of maintenance and Print Protection Plans are available to offer that additional peace of mind.

Through our After Sales team and distributors, local and timely support is provided to our customers across the globe. Be it via remote diagnostics and rectification, or on site technical assistance, our network of engineers guarantee a swift and thorough response to all enquiries.



## Edale Aftercare

Our commitment to first-class customer service ensures our relationship with you begins well before any purchase is made.

**Print protection plans** – We offer a range of service contracts to meet your needs, starting from our entry-level 'Remote Only' diagnostics package, through to fully comprehensive support packages.

**Spare parts, consumables, and tooling** – We offer a vast range of spare parts to help reduce your planned or unplanned downtime, helping to maximise productivity and on time deliveries.

**Tailored training packages** – We can host or deliver a wide range of training courses to support you and your business needs and ensure you are getting the best from your Edale machine. Whether a new or existing customer, at Edale or onsite, our specialist Print Technicians are here to help you hit your productivity goals.

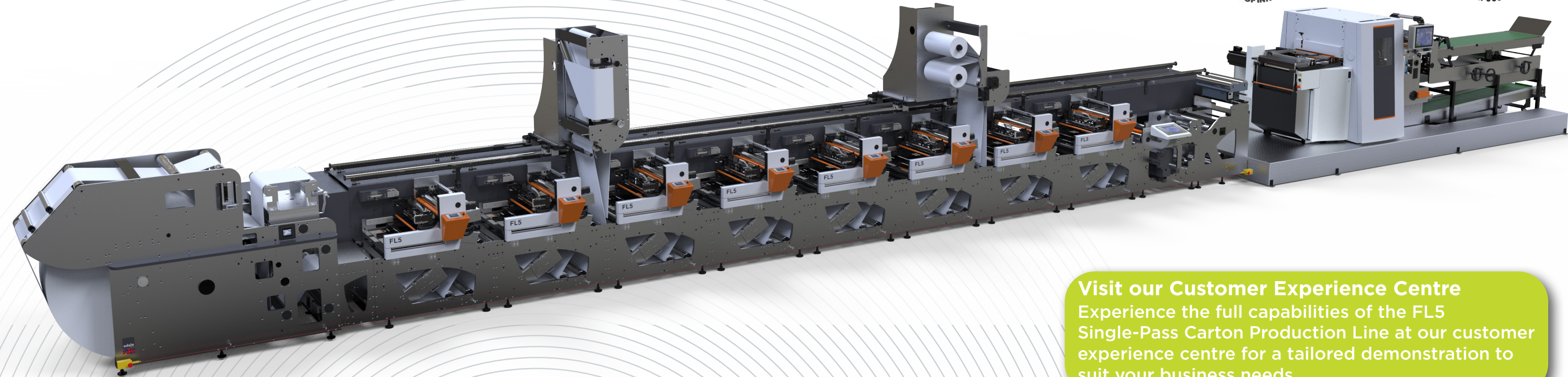
**Standard and bespoke upgrade solutions** – With the ability to upgrade your current machine with an 'off the shelf' solution or something completely tailored to your needs, upgrading your machine can help grow your business and take you to the next level.

**Comprehensive technical support** – Our technical support team are here to help when you need it most. Be it via email, telephone, remote connectivity, or onsite assistance, we've got your back.

**Investment preventative maintenance and service visits** – This is covered under our Print Protection Plan.



# Get the full In-person or Virtual Customer Centre Experience



**Visit our Customer Experience Centre**  
Experience the full capabilities of the FL5 Single-Pass Carton Production Line at our customer experience centre for a tailored demonstration to suit your business needs.



## Contact Us

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## Social Channels

edale-ltd  
 www.youtube.com/EdaleLimited  
 @edaleltd



# FL5 Technical Specifications



Product	FL5
Web widths (mm/inch)	540mm   21.2"
	600mm   23.6"
	650mm   25.5"
Repeat range (mm/inch)	254 – 711.2mm   10 – 28"
Material range (micron/pt)	12 – 700 microns
	0.5 – 28pt
Mechanical speed (m/ft/min)	200 m/min   660 ft/min
* 600mm is standard web width.	

ACCESS OUR LATEST SPECIFICATION SHEET  
SCAN QR CODE TO THE LATEST DIGITAL SPEC SHEET



# FDC Technical Specifications



Product	FDC
Maximum web width (mm/inch)	600mm   24"
Maximum cut width (mm/inch)	580mm   22.83"
Maximum cut length (mm/inch)	711.2mm   28"
Maximum cutting force	165 tons
Maximum mechanical speed	Up to 13000 impressions per hour
*Substrate range is subject to machine configuration. Actual performance will be subject to trial.	

ACCESS THE LATEST FDC SPECIFICATION SHEET  
SCAN QR CODE:







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