



Highcon BEAM

Digital cutting and creasing for mainstream production

The Highcon® Beam digital cutting and creasing solution extends the digital finishing revolution to mainstream production. With a speed of up to 5,000 sheets per hour, this breakthrough machine was developed as a robust solution to the challenges facing folding carton converters and print service providers.

The Highcon Beam replaces the expensive and slow conventional die-making and setup process with a digital technology that delivers improved responsiveness, design flexibility and the ability to perform a wide range of applications in-house. Bridging the gap between design creativity and production capability design, the Highcon Beam takes digital cutting and creasing into a new dimension of value, to both your business and your customers.

Benefits

-  Profitable solution for short and long runs
-  On-demand digital production eliminating tooling and streamlining setup
-  Improved supply chain responsiveness, short turnaround time and last minute corrections
-  A wide range of new, high value applications offering differentiation and competitive edge
-  Design creativity unleashed by removing the limitations of conventional die-cutting formes and stripping

Features

- High speed – Up to 5,000 sheets/hour
- B1 / 42" format
- Wide substrate range: label stock, cartonboard and microflute
- Thick substrate kits to support up to E flute (2 mm) corrugated (*optional*)
- Variable Data Cutting (*optional*)
- Highcon Integrated Digital Stripping (*optional*)
- Highcon Axis Web to Pack Package (*optional*)
- Advanced Registration (*optional*)

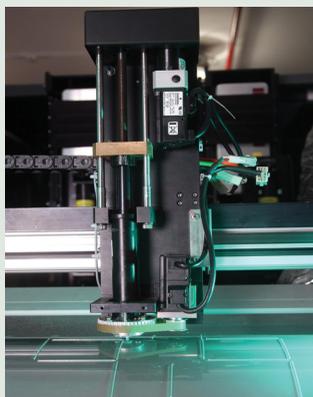
Highcon digital finishing

Launched for the first time at drupa 2012, Highcon introduced the world's first digital cutting and creasing machine. Since then Highcon machines have been installed all over the world and are producing a vast range of applications for hundreds of different brands. The Highcon Beam integrates all the valuable lessons learned worldwide with the right productivity and format size to integrate seamlessly into existing production workflows.

The Highcon Beam takes digital finishing into a new dimension of productivity. It can handle a wide range of substrates, opening up a wider range of addressable applications. The increased speed ensures that short or long run jobs can be equally profitable.

How does it work?

The processes of cutting and creasing are separated into two stages.



Stage 1: Crease

First, creasing is based on Highcon's patented DART (Digital Adhesive Rule Technology) replacing the traditional rules and channels. In the Highcon DART process digital rules are written onto a DART Foil on the machine. Setup for the DART is a mere 15 minutes. Once the DART has been written, production can start with the press of a button and sheets pass between the DART foil and an advanced DART Counter. The combination of digital rules written to match the specific job and substrate, the DART counter's physical characteristics and computer driven process results in crease lines with the same physical attributes as traditional ones.



Stage 2: Cut

The creased sheets then move in one pass to be cut, perforated or etched with precision CO2 lasers and innovative optics. Intricate cutouts and decorative cuts are simple and fast. Being a digital process, last-minute changes or edits are simple and can be done on the machine in seconds.

Job data for repeat orders are simply stored as files, eliminating the need to physically warehouse die-cut tools.

Premium applications

Variable Data Cutting

(optional module)



The Highcon Beam comes with built-in, easy to use, variable data cutting and etching software. By bringing the benefits of variable data to finishing, the Highcon Beam turns a technical process into an opportunity for differentiation. Variable data cutting can transform simple products into premium ones by adding customization, personalization and security applications.

Highcon Integrated Digital Stripping

(optional module)



This waste stripping mechanism is a built-in unit inside the Highcon Beam that automatically removes the waste from the smallest internal cutouts produced on the sheets by the lasers. The optimized cutting algorithms, together with a new substrate handling system ensure completely clean cuts that are essential for intricate cutouts. All the small particles drop into an easily removable chamber. This module removes the need to buy, setup or store a separate stripping tool and further advances the productivity of the machine.

Highcon Axis

(optional module)



The Highcon Axis 2D to 3D platform is a software solution that brings the benefits of a web-to-print system to all the players in the complex paper or cartonboard production supply chain. While web-to-print solutions handle only straightforward 2D products, like brochures or business cards, the Highcon Axis handles all the intricacies of 3-dimensional folding applications.

This solution, developed in collaboration with XMPie and Esko specifically for packaging and other complex applications, can streamline ordering from your existing customers, as well as providing an online storefront for your business.

3D Modeling Package

(optional module)



The limitless design possibilities empowered by the Highcon Beam machines have driven a move into new, even more exciting applications. By digitally cutting numerous layers of substrate with subtle changes in the design, the world of 3D modeling with paper becomes easily accessible.

The Highcon Beam 3D Modeling Package offers customers 3D modeling capabilities at speed, size and cost that have never been available, unleashing the power of paper. Extend your services and offering into new markets and capabilities based on your current expertise in paper, utilizing a wide range of substrates for 3D modeling, including press make-ready sheets.

Highcon Beam Specification

	parameter	metric	in
Performance & Substrate	Max format	760 X 1060 mm. portrait	30 X 42
	Min format	500 X 700 mm. portrait	19.7 X 27.6
	Cartonboard & labels cutting	200-900µ	8-36 pt.
	Cartonboard & labels creasing	200-600 µ	8-24 pt.
	Microflute	Microflute N + F + G up to 1.2mm	47 pt.
	Corrugated	E up to 2mm*	78 pt.*
	Maximum throughput (s/h)**	5000	
Pile data	Height of feeder pile, inc. pallet	1.1 m.	3.6 ft.
	Height of delivery pile, inc. pallet	1 m.	3.3 ft.
Technical data	Net cutting area	745 X 1050 mm.	29 X 41
	Gripper margin	12 mm.	0.47
Machine dimensions & weight	L x W x H	8.8 X 2.15 X 2.1 m	28 x 7 x 7 ft.
	Net weight (tons)	8 tons	

* Optional

**Depends on layout imposition and substrate

Highcon Product Portfolio Comparison*



Highcon



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Highcon Euclid III

Application versatility made possible by digital cutting and creasing

Highcon Pulse

Digital cutting and creasing in a B2/29 in. format

Format	760 X 1060 mm. portrait / 30X42 in	760 X 1060 mm. portrait / 30X42 in	530 x 750 mm. portrait / 21x30 in
Maximum throughput*	5,000 s/h	1,500 s/h	2,000 s/h
Substrate	Cartonboard and labels 200-600 μ (8-24 pt.) Microflute N + F + G up to 1.2 mm (47 pt.) Corrugated up to E flute 2 mm (78 pt.)**	Cartonboard and labels 200-600 μ (8-24 pt.) Microflute N + F + G up to 1.2mm (47 pt.)	Cartonboard and labels 120-600 μ (5-24pt.)
Machine length	8.8 m / 28 ft.	8.6 m / 28 ft.	6.4 m / 21 ft.
Variable Data Cutting	Optional add-on	Optional add-on	Optional add-on
Advanced Registration	Optional add-on	Optional add-on	Optional add-on
CAD Light Editor	Included	Included	Optional add-on
Highcon Axis (basic pack)	Optional add-on	Optional add-on	Optional add-on
Highcon Integrated Digital Stripping	Optional add-on	Optional add-on	Optional add-on
3D Modeling Package	Optional add-on	Optional add-on	N/A

* See product brochure for full specification

** Optional

KOMORI

Komori America Corporation | 5520 Meadowbrook Industrial Court | Rolling Meadows, Illinois 60008-3898 USA

www.komori-america.us | Phone 847-806-9000

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