Equipment



Highly automated flatbed die-cutter. **Heidelberg FCL**.





High-performance webfed solution. **Heidelberg FCL.**

Ultimately, only performance counts. With this in mind, we designed the Heidelberg FCL die-cutter to provide superior performance and years of rugged service.

With the Heidelberg FCL, production speeds of up to 220 m/min (720 feet/min) can easily be realized. With a die-cutting force of up to 300 tonnes, particularly sophisticated embossing and creasing processes are easy to produce. The Heidelberg FCL processes all common paperboard types, whether virgin or recycled board, laminated or not. A technical highlight of the flatbed die-cutter is the patented servo-driven travelling feed roll unit at the die-cutting section. This feature ensures the highest possible production speed even when processing sophisticated materials. Affordable die-cutting tools as well as fast and easy tool changes are the ideal conditions for using the Heidelberg FCL even for smaller job sizes.

The flatbed die-cutter is highly efficient, not only as a standalone solution. In combination with the Heidelberg Intro or ICS you create an ideal workflow for your production. Thanks to the open interface architecture, the FCL can also be integrated in many other machine systems.

The Heidelberg FCL die-cutter has proven itself over years, whenever long-term performance and reliability are paramount.

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Leading in web carton converting. 12 clear advantages*.

Makeready

The high degree of automation and the storage of job data **reduces makeready times during job changes** to an absolute minimum.

The offline preparation of the stripping cassette using a change trolley enables the exchange of the stripping cassette in just



Operator friendliness

The integrated **web break detection** protects the die from damage and increases its lifetime.

Extensive options for **fine adjustment** possible during production.

Productivity

The **optional 100 % inspection control with single blank ejection** reduces the number of manual operations and does away with separate machines for quality control.

The FCL reliably excecutes up to **23,400 strokes** per hour.

* See reverse

The innovative, **process-oriented operator guidance** for an optimized makeready and setup process makes die changes possible in just



Reducing startup waste to a minimum with **automatic presetting parameters**.

Efficiency

Affordable die-cutting tools make the FCL attractive for the processing of short runs.

When it comes to repeat orders, even manually entered settings can be applied.

Die-cutting forces of up to

right from the beginning.

300 tonnes

allow the reliable processing of even sophisticated substrates.



Outstanding characteristics. The facts at a glance.

Powerful performance combined with highest reliability made easy. The flatbed die-cutter Heidelberg FCL combines die-cutting, creasing, embossing and window die-cutting in just one machine with up to 23,400 strokes per hour. Designed for high quality and short makeready times, it covers a wide range of processing methods economically and efficiently.



Equipment:

- Patented travelling feed roll unit connected to die-cut head
- Die-cutting pressure fine adjustment during production
- Auxiliary rewind
- Change trolley for die-cutting tools and stripping cassette
- 100 % inspection control with single blank ejection
- Automatic pre-setting functions
- Fully servo-driven technology

Highlights:

- The flatbed die-cutter prides itself on its perfect combination of creasing, embossing, window and outer-contour die-cutting
- Excellent register accuracy and short makeready times are another highlight of the FCL
- The flatbed die-cutter achieves consistent quality over the entire speed range of up to 220 m/min (720 feet/min) and 350 strokes/min with its tremendous die-cutting force of up to 300 tonnes
- The patented travelling feed roll unit ensures precise web infeed
- The temperature control within the die-cutting unit guarantees constant production conditions and precise register accuracy

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On-site know-how guarantees efficient operating and setup processes: Training. Know-how Transfer.

- · Tailored training programs boost your production · Training programs for machine operators according to your needs
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- · Knowledge acquisition about the latest technical developments
- · Increased machine operator motivation and confidence
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The patented travelling feed roll unit is one of the FCL's highlights. It ensures stable web transport to the die-cutting unit and allows high production speeds.



The 100 % inspection control with single blank ejection identifies defects automatically and ejects them reliably.



The stripping drum reliably removes through exactly positioned stripping pins even the smallest waste dimensions of 6 x 8 mm (0.25 x 0.33 in).





1 Feed station

The dancer roller with pneumatic cylinder ensures constant web tension. The integrated web edge control in combination with the register control unit automatically regulates web edges and monitors the web track.

2 Die-cutter infeed

The web compensator coordinates web storage for register settings and ensures optimal material infeed. The teachable decurler device counteracts web curls.

3 Patented travelling feed roll unit

The patented travelling feed roll unit guarantees stable web transport and allows high production speeds. The integrated infeed roller provides smooth and registeraccurate processing.

4 Fine adjustment

The fine adjustment of the die-cutting tool is an option of the die-cutting module and allows optimum adjustment of the counter plate to the die unit. This guarantees constant processing conditions.

5 Cutting pressure adjustment

The cutting pressure adjustment ensures perfect diecutting results without downtime.

6 Die-cutting unit

The die-cutting unit is the core of the Heidelberg FCL. Whether window or outer-contour die-cutting, the FCL offers maximum performance - strong, powerful, fast, highly accurate and smooth. Even a flat embossing can be generated directly during the die-cutting process. The temperature control within the die-cutting unit guarantees consistent production conditions and flawless carton blanks. With the help of the change trolley the die is exchanged within a few minutes.

7 Sheet conveyor

The sheet conveyor guarantees exact positioning of the separated sheets for downstream processing.

8 Stripping unit

The stripping drum removes reliably even smallest waste dimensions. Waste conveyors are used to transfer those for final recycling.

9 Blank separator & single blank ejection

Blanks still connected at break points are separated from each other in the blank separator and passed on in separate lanes. The optional single blank ejection separates and ejects folding cartons of poor quality. The blank separator can be displaced dynamically, depending on the blank width.

10 Master control station

The master control panel connects the machine with the existing systems. It combines comfort with extensive diagnostic features. An intuitive control concept and process-oriented operator guidance reduce setup times and waste and increase productivity.

11 Delivery table

The integrated catch wheels slow down the carton blanks safely and controlled and position them in a shingle lane. The splice detection guarantees the ejection of the splice between carton rolls. The automatic batch counter provides accurate quantities. A stacking device is optionally available.

The die-cutter first prepares, creases, embosses and die-cuts the webfed carton and then processes it further as a sheet.



For unrestricted readiness for use: **Fitness checks and preventive** maintenance.

- Regular maintenance keeps your machine in top condition for daily production
- · Customized maintenance plans break down maintenance tasks
- · Fitness checks serve to identify wear parts
- · Elimination of faults before they lead to downtimes and early determination of service part requirements



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We look forward to hearing from you!

Get in touch with us for more information, a customized offer and everything else about Heidelberg and the FCL you would like to know. We will be happy to give you a live presentation of our products' performance. Arrange for a demonstration and see for yourself.

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