



Promatrix 106 CS

Affordable Automated Diecutting.



Heidelberg's automated die cutter and embossing system for advanced 41" applications.

The Promatrix 106 CS.

Heidelberg's commercial die cutting and embossing system for the 41" format (size 70x100cm) – the GS Approved* Promatrix 106 CS.

Die cutting solutions for professional converters & commercial printers with full Heidelberg support. With the Promatrix 106 CS, process materials from 65# text to 78 pt. board and up to 4mm corrugated in the full 41" press format. At 8,000 sheets per hour, the Promatrix is the perfect solution for advanced commercial applications and professional carton converting.

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(*) GS approval stands for "Geprüfte Sicherheit" ("Approved/Checked Safety") and is the seal of approval for safe operation of any piece of equipment, bestowed by the German Association of Professional Printers (Berufsgenossenschaft Druck) after a careful evaluation. Stringent safety standards for operation and design have to be met to allow a product to carry this seal of approval.

We are more than machines.

E

Equipment

As the world's largest supplier to the folding carton market, Heidelberg backs up its leadership with a portfolio of innovative packaging solutions, from prepress and workflow, to 29", 40" and VLF sheetfed presses, to die cutting and folding carton gluing, and from entry-level to high-performance.

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S

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C

Consumables

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Heidelberg & Masterwork –
Successful Relationship Started

Features & Benefits. Promatrix 106 CS.

Cutting Speed.

8000  **SPH**

with non-stop operation in feeder and delivery.

Affordable automation for faster make-readies.

Easy to learn, simple to use – thanks to touchscreen user interface.

Processes board up to

78 pt.

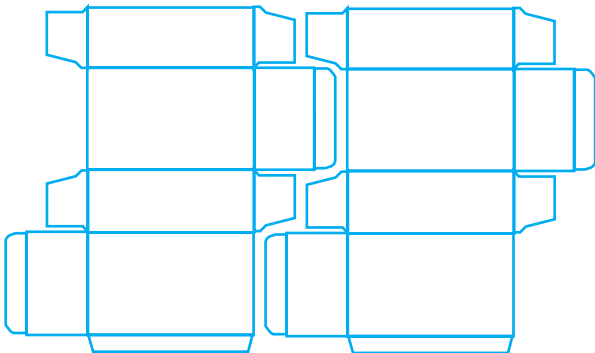
Format: 29.9" x 41.7"

XL 106.

Compatible with all Heidelberg 40" Speedmaster presses, including the Speedmaster XL 106

Explore **new product** opportunities.

Motorized cutting pressure adjustment. **Quick Lock** systems for the tools in the cutting and stripping station are included in the machine standard.



The perfect solution for

Advanced Commercial Applications and folding carton production.

Heidelberg's new equipment warranty

12 mo.

Short makeready times and straightforward operation deliver an unprecedented level of productivity. Learn more about the Promatrix CS at

➔ heidelberg.com/us

➔ heidelberg.com/ca



Increase your productivity:
Upgrade to

Automation.

Safe Operation.



Confirmed by GS approval.

Cutting versatility.

Processes materials as thin as

65#.



Heidelberg Service.

Complete support from the largest service coverage in the industry for parts, installation, training, & production.

Processes up to

4mm (0.16")

corrugated board
in full 40" format.

CS

Available with cutting and stripping stations (CS).

Systematically reduced set-up times and
Consistent Production.



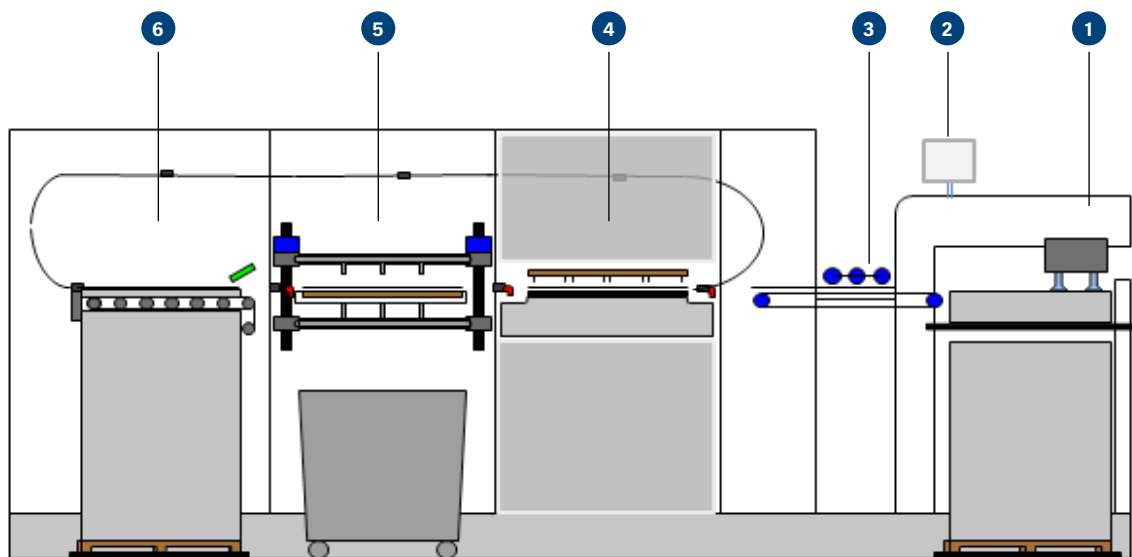
The machine is equipped with a manual non-stop feeder and a suction head with quick adjustment.



The feed table is equipped with two central suction belts for stable and secure sheet transport. It features ultrasonic double sheet controls. Before arriving at the front-lays, the sheets are slowed down.



The Promatrix works with a 4+1mm cutting plate system (4mm thick cutting plate plus 1mm thin cutting plate). Pneumatic unlocking/locking is standard – as is air support for pulling out the cutting plate.



1 Feeder (see Page 8)

The suction head separates the sheets and transports them to the feed table. The Promatrix feeder is capable of converting paper from approximately 65 lb. text up to 78 pt. carton board and corrugated board with a maximum thickness of 4mm (0.15").

2 Touchscreen (see Page 18)

An intuitive and simple-to-use touchscreen makes the machine easy to use.

3 Feed Table (see Page 10)

The feed table is equipped with two central suction belts for stable and secure sheet transport. The rollers and brushes ensure the sheets stay flat. Additionally, there is a standard transport belt on the operator and on the drive side. All belts can be laterally adjusted +/- 4mm (0.157"); thus, preventing friction between sheet edge and belt edge. As the sheet approaches the front lays, it is slowed down to increase register accuracy.

4 Cutting Station (see Page 12)

The cutting station is the heart of the machine, where cutting, creasing and embossing are done. It has a maximum cutting pressure of 260t (286tn), and the adjustment of the pressure is motorized.

5 Stripping Station (see Page 14)

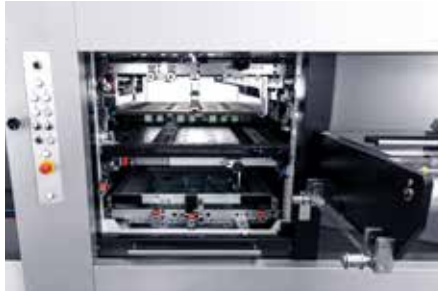
In the stripping station, the inner waste pieces are removed from the sheet and, depending on the layout, the side and rear trim can be removed as well.

6 Delivery (see Page 16)

The cut and stripped sheet is transported to the delivery station. Typically the sheet is delivered with the front edge; a front edge removal system is available as an option. The moving apron allows for easy non-stop open-action.

7 GS-Approved (see page 2)

After careful testing, the GS-seal ("Geprüfte Sicherheit" approved safety) confirms that the machine complies with German safety operational standards.



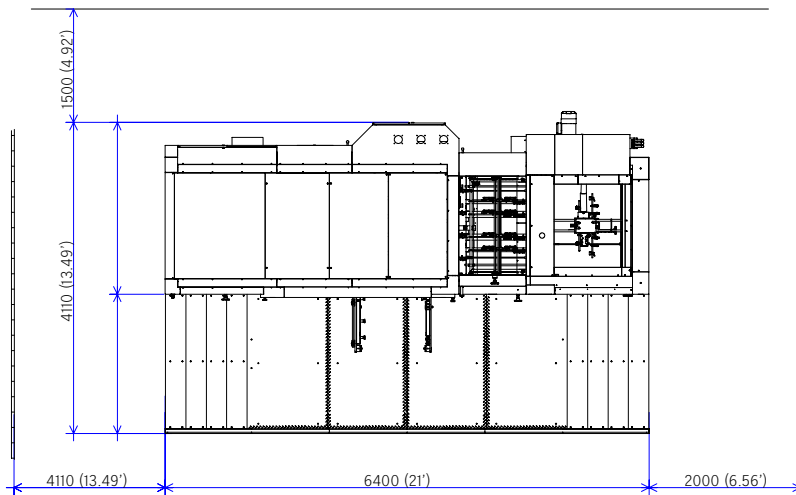
There are three cassette frames integrated in the stripping station: one for the upper stripping tool, one for the middle stripping board and one for the lower frame. A pneumatic lift makes access easy.



The delivery features an automatic non-stop apron instead of a non-stop rake, which guarantees a mark-free non-stop operation.



An Open House at a customer installation of a Promatrix 106 CS,



Promatrix 106 CS

Material

Paper (min.)	90 g/m ² (approx. 65 lb. Text)
Carton Board (max.)	2,000 g/m ² (approx. 78 pt.)
Corrugated Board (max.)	4.0 mm (0.157")

Performance

Sheet Size (min.)	300 x 350 mm (11.82 x 13.78")
(max.)	760 x 1,060 mm (29.92 x 41.7")
Cutting Pressure (max.)	2.6 MN/260 t (286 tn)
Machine Speed (max.)	8,000 sph

Pile Height (incl. pallet)

Feeder Pile:	
w/o non-stop function (max. height)	1,500 mm (59.05")
with non-stop function (max. height)	1,200 mm (47.24")
with non-stop function (max. weight)	1,500 kg (3306 lbs.)
Delivery Pile:	
Height (max.)	1,400 mm (55.11")
Weight (max.)	1,350 kg (2970 lbs.)

Technical Details

Maximum Dimension of Cutting Die	754 x 1,070 mm (29.68 x 42.13")
Net Cutting Area	734 x 1,060 mm (28.89 x 41.73")
Gripper Edge Margin (13 mm wood in front of 1 st knife)	9–17 mm (0.36–0.66")
Weight of Machine	Approx. 19 t (20.94 tn)

Feeder.

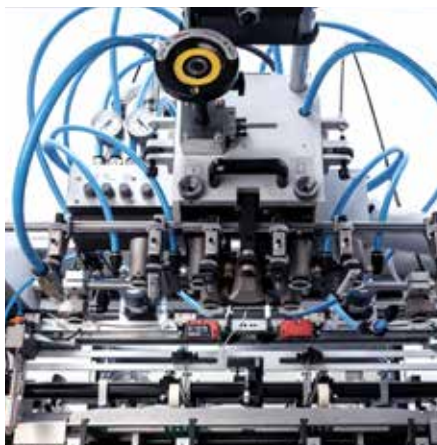
Promatrix 106 CS.

The suction head separates the sheets and transports them to the feed table. The Promatrix feeder is capable of converting paper from approximately 65 lb. text up to 78 pt. carton board and corrugated board with a maximum thickness of 4mm (0.15").



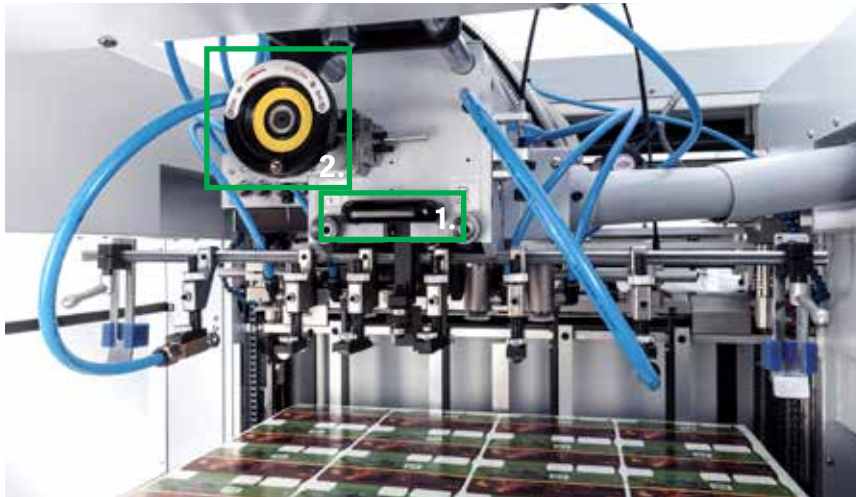
The machine is equipped with a non-stop feeder. By using the non-stop swords, a pile change can be done while the machine is in full production.

Non-stop swords in production.



The suction head features four pick-up and four forwarding suckers.

Suction head of the Promatrix 106 CS.



Size adjustment via suction head: The sheet length adjustment can be done by a quick adjustment at the suction head (1). This allows a quick change from large to small sheet sizes and back. If required, a fine adjustment can be done via hand wheel (2).



The feeder pile tray is motorized and can be moved +/- 20mm (0.787"). The feeder pile tray is on top of a fixed carrier plate. The feeder pile tray is automatically centered when it reaches the floor.

Highlights of the feeder:

- Non-stop feeder
- Fast format change at suction head
- Motorized feeder pile support plate
- Scales for easy pre-setting at suction head mounting
- Scales for easy pre-setting at front-end of pallet (color coded)
- Electro-mechanical double sheet detector with additional ultrasonic double sheet detector at the feed table
- Pallet size: max. 760 x 1,075 mm (29.92" x 42.3")
- To use the non-stop function at the feeder, an appropriate pallet is required; compatible 40" Heidelberg pallets are D-432 and D-159
- The machine is equipped with a ramp ahead of the pile tray for easy pallet feeding. Alternatively, the support plate can be recessed
- The governor foot and the separating blowers are supplied with air from a compressor
- Center-line based system



Largest service force in the industry:
Every Promatrix is covered by full Heidelberg Service

- Over 350 Service Technicians in the US & Canada
- More than just simple repair
- Wherever you are, whatever your business needs

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Feed Table.

Promatrix 106 CS.

The feed table is equipped with two central suction belts for stable and secure sheet transport. The rollers and brushes ensure that the sheets stay flat. The fast and tool-free changeover from pull side guide to push side guide allows for efficient processing of corrugated board. Additionally, there is a standard transport belt on the operator and on the drive side. All belts can be laterally adjusted +/- 4mm (0.157"); thus, preventing friction between sheet edge and belt edge.

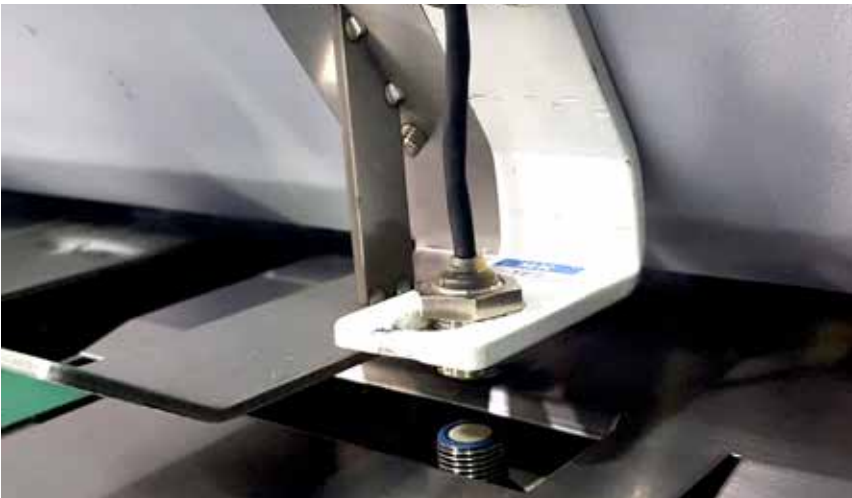


TOP: Feed Table with suction belts and hand wheel for central adjustment of the rollers and brushes

The sheet is aligned at the feed station with front and side lays. The front lays can be individually selected. These active front lays can also be used for special surfaces, e.g. black or transparent material. Heidelberg welcomes the opportunity to test any material in one of our demo centers. If required, the front lays can be adjusted at an angle.



The lateral sheet adjustment uses the mechanical side lay. The Promatrix provides one on the operator side and one on the drive side. Both side lays can easily be changed from pull to push operation without any use of tools.



Ultrasonic double sheet sensor at the infeed.

Highlights of the feed table:

- Feed table with two suction belts and two transport belts
- Tool-less change-over of side guides from pull to push operation and back
- Central size adjustment for the rollers and brushes via a hand wheel
- Ultra-sonic double sheet detection
- Sheet arrival timing can be adjusted via a hand wheel
- For better registration accuracy and higher repeatability, sheets are slowed down before being positioned via front and side lays
- Cover guide adjustable in height
- Gripper finger opening device (in case of misaligned and double sheets)
- Removable front lay arrester, helpful if the front sheet edge is concave or convex
- Fold-out step for better feed table accessibility
- Register system
- Center-line based system



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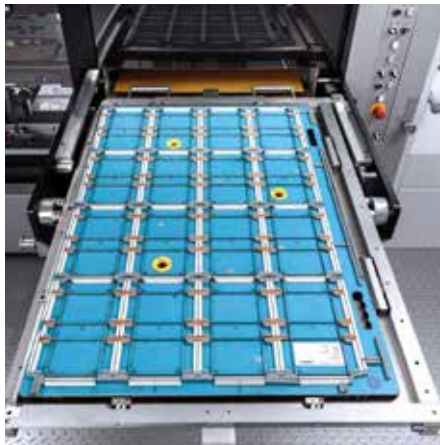


Parts Specials at bit.ly/PartsSavings

Cutting Station.

Promatrix 106 CS.

The cutting station is the heart of the machine where cutting, creasing, and embossing are done. The Promatrix has a maximum cutting pressure of 286tn and the adjustment of the pressure is motorized; the operator sets the pressure via the touch-screen. At the push of a button, the lower cutting plate and the cutting chase are released or locked – this reduces the makeready time.



Quick lock chase is part of the standard equipment. This chase is characterized by easy locking and releasing of the cutting die through a spring system. To protect the patching sheet, the machine is also equipped with a synthetic cover plate.



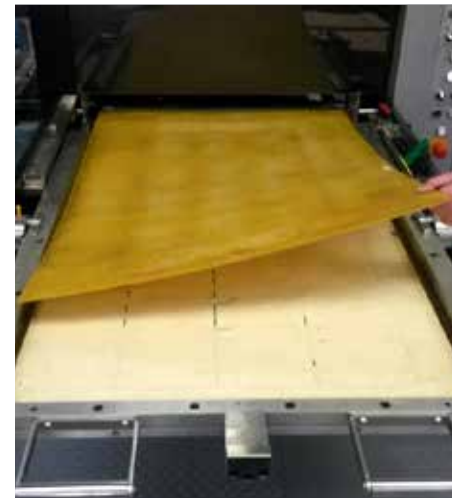
An air cushion can be switched on to support the removal of the cutting plate to make it easy to move. The Promatrix works with a 4+1mm cutting plate system (4mm thick cutting plate plus 1mm thin cutting plate). This system is fixed on a supporting plate. The supporting plate includes a fine adjustment system that allows an adjustment of the cutting plate of +/- 1.0mm, enabling the fine tuning of the 1mm plate.

TOP: Quick Lock Chase with cutting die
BOTTOM: 1mm cutting plate with fine adjustment (including 4+1mm system).



LEFT • Cutting station of the Promatrix 106 CS.

BELOW • Die-Lock Chase (back side) with patching sheet and synthetic cover plate
The patching sheet is protected by a synthetic cover plate.



Highlights of the cutting table:

- Pneumatic lift, locking, and unlocking of cutting chase
- Pneumatic locking and unlocking of cutting plate
- Fine adjustment of cutting plate in all directions
- Air cushion support for easy removal of cutting plate
- The Quick Lock Chase with fixed make ready plate has the European hole pattern (diagonal); other hole patterns are available on request
- Motorized cutting pressure adjustment via touch-screen
- Sheet monitoring sensor between cutting and stripping station
- To use smaller cutting dies, an optional cutting chase with adapter bars is available
- Register system keeps cutting accuracy independent of chain stretch
- Center-line based system



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Stripping Station.

Promatrix 106 CS.

In the stripping station, the inner waste pieces are removed from the sheet and, depending on the layout, the side and rear trim can be removed as well.

There are three cassette frames integrated in this station: one for the upper stripping tool, one for the middle stripping board, and one for the lower frame. All three frames are equipped with fine adjustment systems and indicators. The adjustment range is +/- 2.0 mm (0.787"), which is useful to make small adjustments for repeat jobs and for fine tuning the position of dynamic stripping tools.



The upper frame can be moved by a pneumatic lift to create an additional gap of 130 mm (5.1") between the stripping board and the upper pins to allow easy access for the operator. The upper frame has a quick lock system with pneumatic clamping to fasten the built-in upper stripping tool. This system and clamping can be used either for dedicated tools or for universal tools, which are set in a frame. The benefit is that either tool can be fine adjusted.



The stripping board is mounted into a pull out frame and uses quick lock tooling clamps for quick and easy set up. Fine adjustment of the stripping board is possible.

TOP: Upper stripping frame with fine adjustment incl. dedicated tool
BOTTOM: Central pull out frame with stripping board



TOP • Test sheet on stripping board cassette

A test sheet for quality control can be taken in the stripping station. The gripper fingers are opened pneumatically with the push of a button. Then, the operator can remove the sheet from the stripping station. Alternatively, the stripping board with the test sheet on top can be pulled out from the stripping station.



BELOW • Lower stripping frame: If required, the lower frame can be set with lower stripping pins. This frame is also equipped with a fine adjustment system and indicators.

Highlights of the stripping station:

- Pneumatic lift for upper tool
- Three cassette frames that allow fast exchange of all tools
- Fine adjustment with indicators for all three cassette frames
- Pneumatic clamping of upper tool
- Sheet monitoring sensor between stripping station and delivery
- Register system keeps stripping process independent from chain stretch
- Test sheet removal function with pneumatic gripper opening
- Illuminated from inside
- Optional pre-makeready table allows for set-up of the stripping tools for the next job without interrupting production
- Center-line based system



Customizable Services:

Flexibility to Choose What You Need

- Choose from 36 different service modules with the flexibility to select individual services, standardized bundles, or a completely customized project



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Delivery.

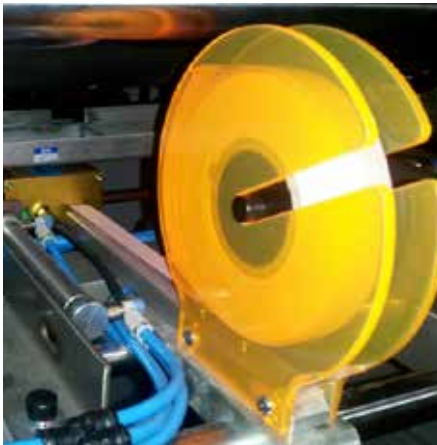
Promatrix 106 CS.

The cut and stripped sheet is transported to the delivery station. Typically the sheet is delivered with the front edge; a front edge removal system is available as an option.



The delivery features an automatic non-stop apron instead of a non-stop rake, which guarantees a markfree, non-stop operation.

During production, the operator can take out a test sheet for quality control from the delivery sheet pile.

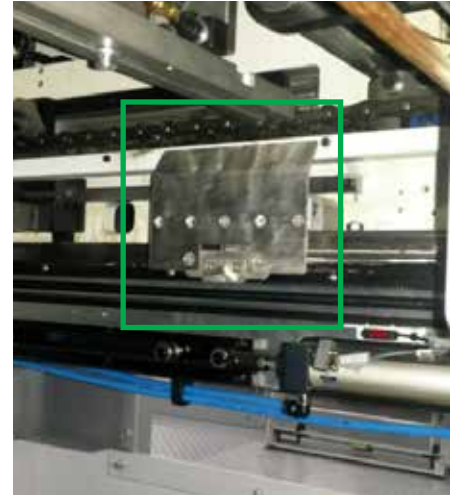


A tape inserter is an option available for the Promatrix; this allows batches of product to be counted.

TOP: Non-stop apron.
BOTTOM: Tape inserter (option)



Sheet braking brush



Side jogger (Operator Side)

The delivery is equipped with several different devices to help create a neat pile. The rear edge of the sheet is controlled via a sheet braking brush that is adjustable from outside the machine.

Highlights of the delivery:

- Automatic non-stop delivery with moving apron
- Two air blowers help ensure the sheets drop on the pile quickly and smoothly
- A bar blowing air against the direction of sheet travel helps keep the sheet flat. The air pressure is adjustable and the blower position can be changed
- Side joggers ensure a straight line pile edge; for easy presets, the joggers feature a scale
- The length size adjustment can be positioned with a hand wheel that includes position indicators for easy set-up of repeat jobs
- Optional gripper edge removal system
- Optional tape inserter
- A WBAD (Whole Body Access Detection) stops the machine in the case that any of the light barriers are broken



Customizable Services:

Flexibility to Choose What You Need

- Choose from 36 different service modules with the flexibility to select individual services, standardized bundles, or a completely customized project



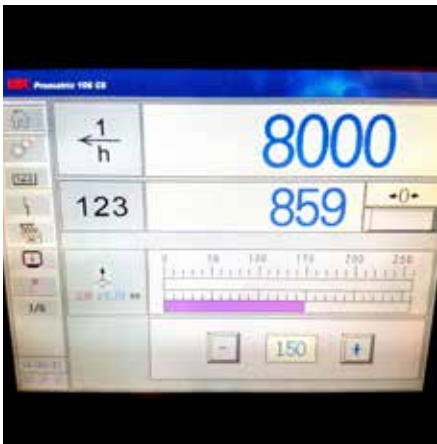
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Machine Control

Promatrix 106 CS.

The Promatrix is controlled via an intuitive touch screen. Eight easy accessible screens allow for a fast set-up and simple operation. At the touch screen, the operator can select, for instance, the active front lays and the amount of sheets to be processed. The screen also provides information about the maintenance intervals and displays error messages. Last but not least, the cutting pressure is adjusted from here as well.

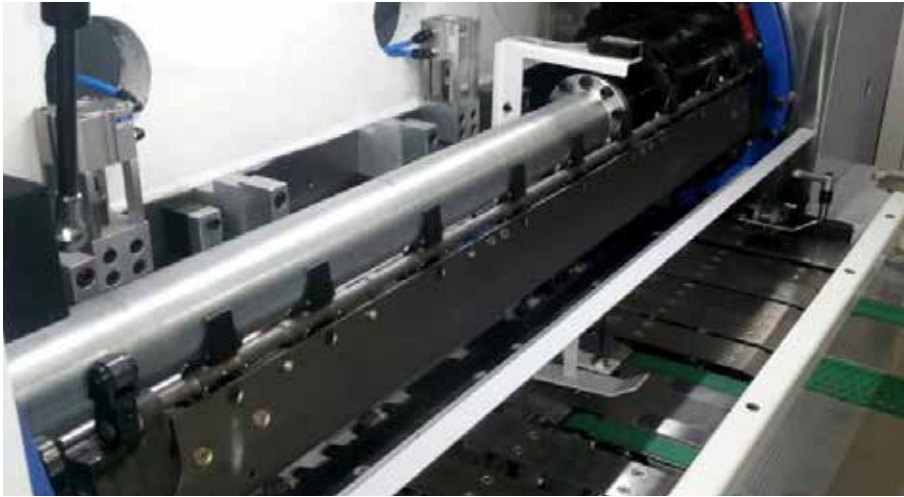
Additional control panels at the feeder, cutting and stripping station as well as the delivery make the Promatrix very efficient to run.



The touch screen is located at the feeder and can be angled for better visibility across the operator platform. The menu bar on the left of the screen makes it easy to change from one screen to another. The Promatrix is a machine that is quick to learn and easy to run.



TOP: Touchscreen showing operating status.
BOTTOM: Feeder with integrated touchscreen.



The Gripper Bar: The Promatrix works with seven gripper bars. Every gripper bar has nine gripper fingers. If required, the three outer gripper fingers on either side can be repositioned. The three inner fingers are fixed.

The gripper fingers are in bottom position which means that the central stripping board remains stationary; this improves the stability of the sheet keeping it flatter in the machine.



Register System and Sheet Detection: For precise cutting and stripping, the Promatrix is equipped with a register system in the feed table, the cutting station, and in the stripping station: this ensures consistent quality as the cutting and stripping are kept independent of the chain stretch. There are two sensors to check the sheet after the cutting station and another one (which is moveable) after the stripping station to ensure the sheet stays intact as it travels through the machine. Additionally, there is a sensor after the delivery station to identify overshooting sheets.

Machine Control:

- Local control panels for convenient operation at all stations
- 10.4" touch-screen with:
 - Indication of operating status, including running speed and cutting pressure
 - Number of sheets processed
 - Maintenance information
 - Selection of front lays
 - Motorized adjustment of cutting pressure

Additional Standard Features:

- 7 gripper bars with 9 gripper fingers each
- Central lubrication system
- Automatic chain lubrication
- Oil cooling device
- Mitsubishi PLC
- Overload protection
- Operator platform
- Several scales for easy presetting:
 - Colored scale at feeder for easy loading
 - Scale at suction head setting
 - Scale at side lay
 - Scale at delivery side jogger

More than just simple repair. **Heidelberg Service & Support.**

You have to keep your machines running to be successful in today's demanding business environment. You require the right combination of service, parts, and consumables to support your needs around the clock.

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Partnership between Heidelberg & Masterwork: Successful Start – First Installations.

Polish packaging printer puts world's first Promatrix 106 CS die cutter from Heidelberg into production:

- Arka-Druk benefits from wide range of standard features and is impressed by high quality
- Further sales to European customers
- Joint development of die cutters with Masterwork Machinery continues and new products in pipeline

Polish packaging print shop Arka-Druk in Lapy near Bialystok has begun production with the world's first Promatrix 106 CS die cutter. The Promatrix 106 CS is the first machine to result from the partnership concluded last fall between Chinese manufacturer Masterwork Machinery Co. Ltd. (MK) and Heidelberger Druckmaschinen AG (Heidelberg). The machine is being sold exclusively by Heidelberg.

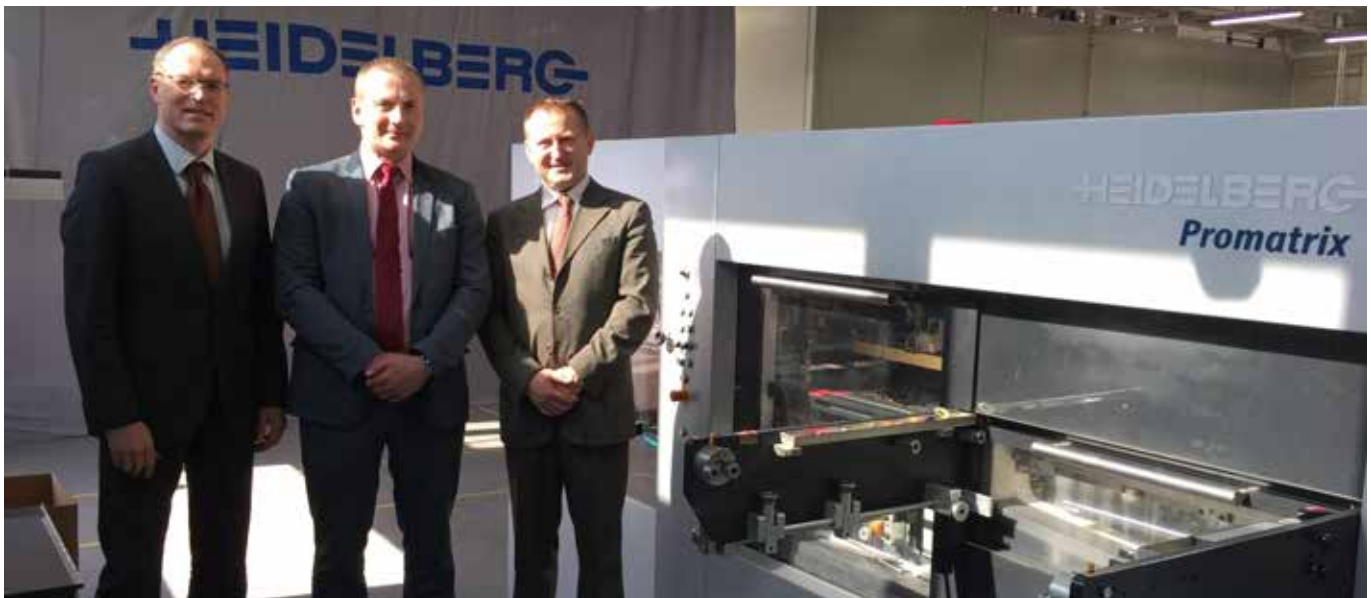
Following lengthy and extensive testing, Arka-Druk is now benefiting from the comprehensive standard features of the Promatrix 106 CS and is delighted with the high quality. Arka-Druk was founded in 2000, has 70 employees, and supplies discerning customers in the packaging industry, including pharmaceutical and cosmetics companies. Its excellent experiences with the Varimatrix 105 CS die cutter and Easygluer 100 folding carton gluing machine, also installed by Heidelberg, underpinned its decision to purchase the Promatrix 106 CS. "We were looking for a die cutter for runs and lead times that are becoming ever shorter," explains owner Arthur Bach. "The tests with the Promatrix 106 CS met all our expectations. The die cutter fits in well with our concept of industrial production with structured processes and delivers high quality with reliable production," he adds.

Heidelberg unveiled the Promatrix 106 CS last fall at the Packaging Days held in Hall 11 at its Wiesloch-Walldorf site. The machine impresses with a wide range of standard features, extremely user-friendly operation, and an attractive price-performance ratio. The Promatrix 106 CS performs die cutting and embossing at a speed of 8,000 sheets per hour for a 760 × 1,060 millimeter (29.92 × 41.73 inch) format. Thanks to its short makeready times, users benefit from high productivity and excellent cost-efficiency. It can handle a wide range of materials – from 90 all the way up to 2,000 grams per square meter – and also processes corrugated board up to four millimeters (0.16 inches) thick.

"We're delighted the Promatrix 106 CS has been so well received by the customer. Other machines sold to European customers are almost ready for delivery," confirms Dr. Frank Schaum, head of Postpress at Heidelberg. The Heidelberg sales team works closely with product management at MK. This ensures new products meet customers' technical and commercial requirements. "We will continue to develop the product portfolio with MK in the medium term. Our objective in doing so is to supply the right machines and solutions to ensure effective folding carton production, complete with the appropriate service activities," explains Schaum. Customers also enjoy access to the Heidelberg global sales and service network.



The world's first Promatrix 106 CS from Heidelberg is up and running at Polish packaging print shop Arka-Druk. Other print shops found out more about the die cutter at an open house event.



Arthur Bach (center), owner of Arka-Druk, is delighted with the Promatrix 106 CS. Also at the event were Dr. Frank Schaum (left), head of Postpress, and Krzysztof Pindral, head of Heidelberg Poland.

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