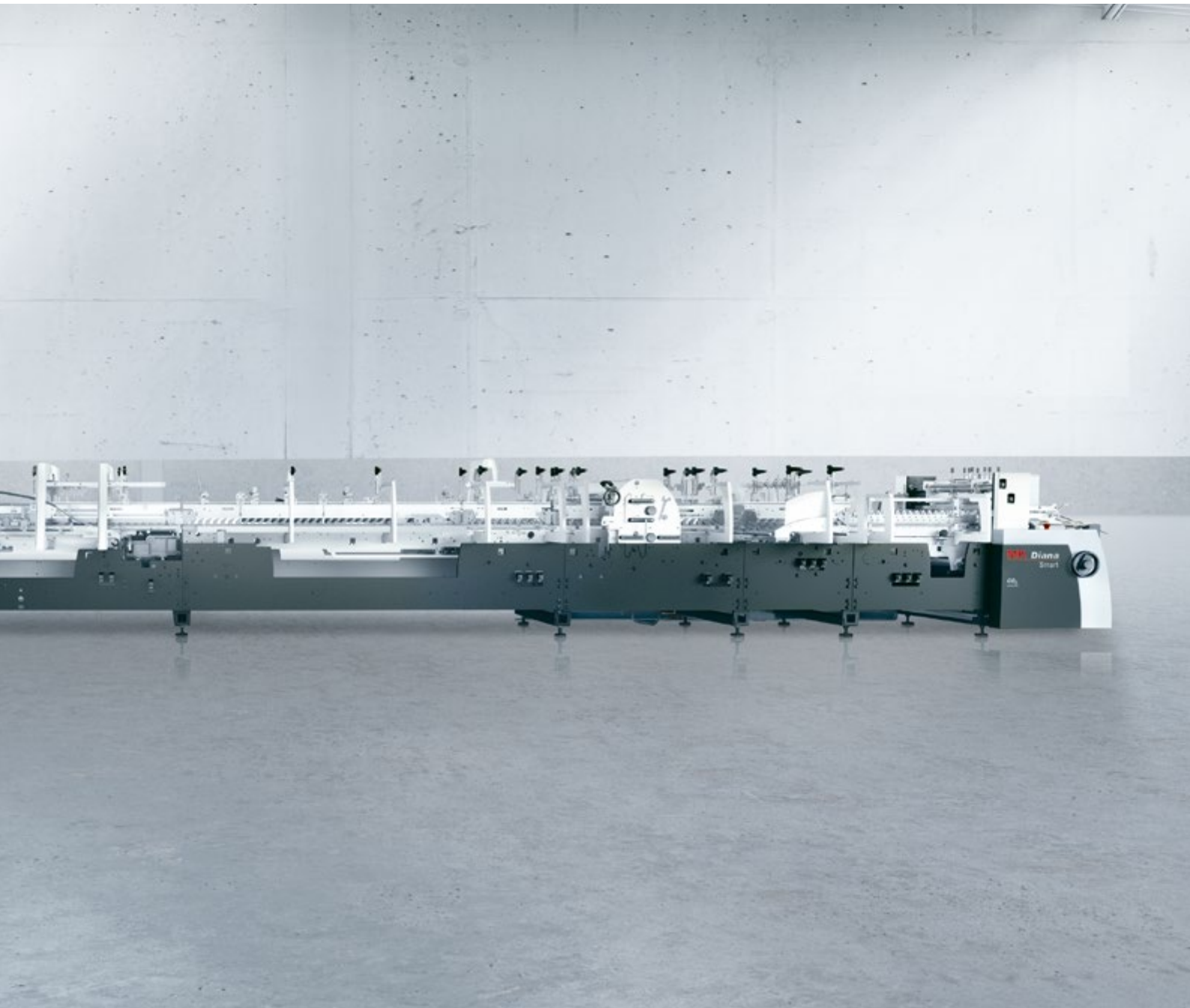


Intelligent folding
carton processing.
Diana Smart 55/80/115.



Full flexibility thanks to modular design.

Diana Smart 55/80/115.

There is nothing more constant than change. This also true for the world of packaging. The life cycle of many consumer goods is constantly getting shorter. At the same time, the opportunities for a brand to stand out from the crowd are increasing rapidly. “One solution fits all” is a thing of the past.

Special applications like Braille embossing or inline quality inspection raise the folding carton gluing process to a new level of complexity. The needs of manufacturers, however, revolve around short runs, fast machine makeready and operator-friendly setup.

In response to the changing needs of our customers, we have expanded our portfolio of folder gluers in the medium-performance segment with the Diana Smart from Masterwork. Based on the successful Diana X model series, the Diana Smart is characterized by a compact design, without compromising folding quality and with a maximum machine speed of 600 m/min (Diana Smart Speed package). It is perfectly suited to handle a wide variety of folding cartons in the working widths of 55, 80 and 115 cm (21.65, 31.50 and 45.28 in) and up to a length of 600 mm (23.62 in), including:

- Straightline cartons
- Lockbottom cartons
- Double-wall- and partition cartons
- 4-corner and 6-corner collapsible cartons
- Miniature cartons
- Mailing envelopes, etc.

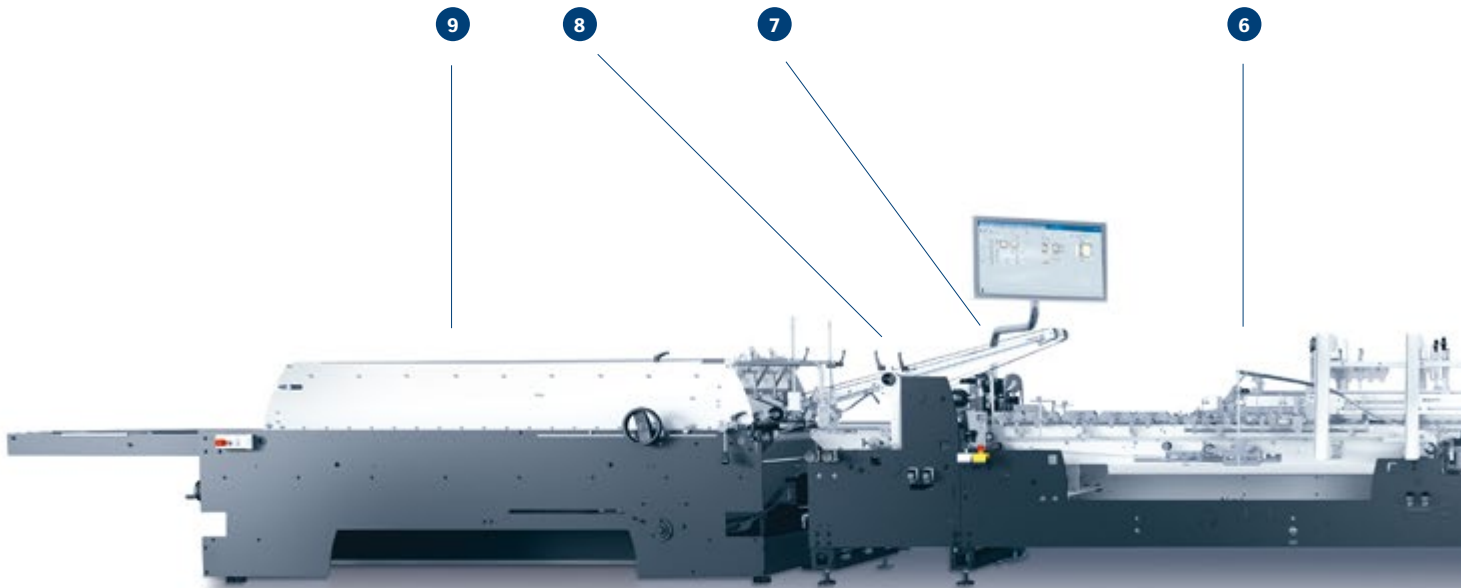
Processable materials range from 200 – 600 g/m² solid cardboard to E flute.

The Diana Smart control system – based on an intelligent PLC concept – simplifies previously labor-intensive and time-consuming setup processes. While the SmartSet function will store all settings for repeat jobs, the DigiSet function calculates the correct carrier positions for initial makeready. And with AutoSet and AutoSet Plus, even the labor of adjusting the carriers is eliminated: they find their correct position automatically, at the push of a button.

In combination with the Diana Inspector and the Diana Braille module, the Diana Smart is perfectly equipped to meet the highest demands e. g. of the pharmaceutical market. When equipped with the Pile Turner, the Diana Feeder, as well as the Diana Packer 4.0, Diana Smartpacker or Diana Easy packer material handling around the machine is greatly simplified and automated to achieve a smooth production workflow and reduce the cost of labor.

The Diana Smart is manufactured by Masterwork, exclusively distributed by HEIDELBERG® and backed up by the professional and renowned, worldwide HEIDELBERG sales and service network.

 heidelberg.com/folding-carton-gluing

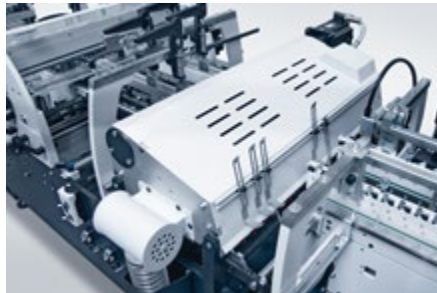


The machine shown is a sample configuration. Some of the equipment features mentioned are optional.



1 Feeder with blank alignment

- Short setup times
- Friction feeder with easy-to-adjust belt guides
- Belt change in less than 60 seconds without pulling the shaft
- Single drive for precise speed control
- Blank feeding adjustable in length
- Suction feeder (option)
- Alignment possible to the right or left side
- Adjustable stop, e.g. for aligning cartons with the window cut out
- Upper/lower center carrier (option)



2 Diana Inspector

- Full inline inspection of the entire print image
- Suction tape technology stabilizes the blank for inspection
- Inspection of defined areas with different resolutions
- Inspection of hot-foils, aluminum-laminated materials and other highly reflective surfaces
- Setting values can be saved for repeat jobs
- Measurement of color variations greater delta 2.5
- Automatic ejection of defective or skew cartons possible
- Automated reporting
- Reliable carton transport
- Low energy consumption (LED lighting)
- PDF comparison for improved inspection quality

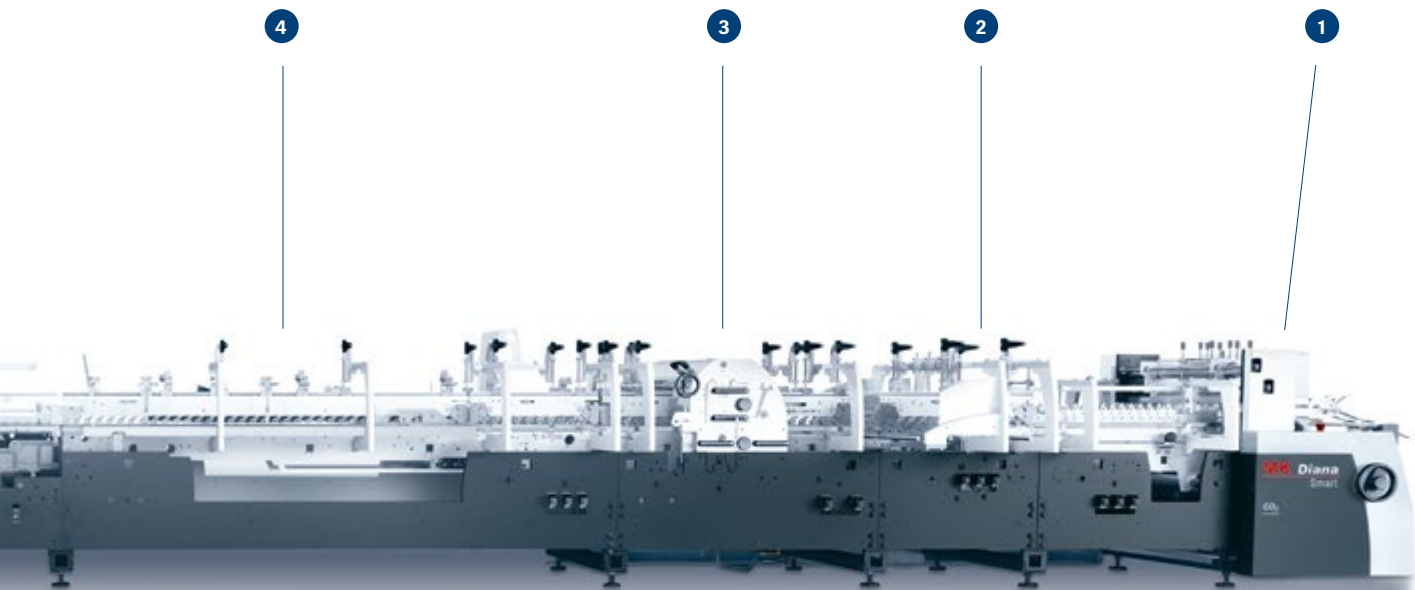


3 Diana Braille module

- Up to two tools can be positioned in parallel across the entire working width
- For 4/5-line Braille tools
- Reliable carton transport during embossing
- Systemic embossing quality control
- Module length under 1,400 mm (55.12 in) regardless of the number of Braille tools

+ Diana Braille module with cross adjustment (option):

- perfect solution for short and long production runs
- Tool plates can be changed quickly inside the machine
- Software supports the operator for best Braille dot quality
- Supports fast positioning



4 Prefolder

- Excellent accessibility thanks to low side panels on the operator and drive side
- One lower carrier each right and left side
- One upper roller bar on the right and two upper roller bars on the left
- Additional upper roller bar at the rear right (option)
- Belt folding on drive side
- Lockbottom device (option)



5 Combi module

- Three lower and five upper carriers
- Processing 4-corner and 6-corner collapsible cartons
- Comfortable and fast setup of lockbottom cartons
- First backfolding shaft in the rear prefolder, second backfolding shaft in the combi module
- Safety light curtain for maximum protection without restrictions during setup



6 Folding station

- One left and right telescopic roller bar each
- Left-before-right folding or right-before-left folding as standard
- Lower center carrier can be hinged downwards (option)
- Removable upper central transport (option)
- Lowered side panels for good accessibility
- Belt folding with open blank width up to 45 mm (1.77 in) possible (option)
- Offset folding possible
- Folding belts can be controlled via horizontal roller systems
- Shortening of the left folding

Outstanding characteristics.

The facts at a glance.

Highlights:

- Feeder with single servo drive
 - Blank alignment as standard
 - 3 m (118.11 in) prefolder
 - Diana Braille 2.0 now with cross adjustment for faster positioning
 - Diana Inspector: inline inspection module also for metalized surfaces
 - Folding station with flexible roller bar design
 - Combi module with the latest safety concept for collapsible cartons
 - For combination with Diana Pile Turner, Diana Feeder, Diana Packer 4.0, Diana Smartpacker, Diana Easy packer
 - Servo motor-driven machine sections
 - Collecting and pressing device length: 4 m, 5 m or 7 m (157.48 in, 196.85 in or 275.59 in)
- State-of-the-art operating concept via touchscreen
 - Excellent accessibility for easy setup
 - Proven, reliable roller bar design from the Diana series
 - Solid machine run with very little vibration
 - Intelligent belt guidance for greatly simplified belt exchange

➔ heidelberg.com/en/diana-smart



7 Pressing station

- Reduces the fold-back forces of the folded creasing
- Variable pressure setting by means of ergonomically shaped handwheels for operator and drive side
- Suitable for sensitive cardboard surfaces
- Lateral positioning together with the outer carriers of the folding station

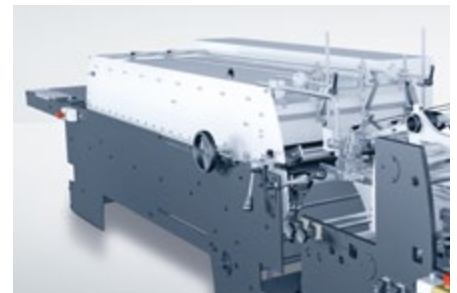


8 Transfer station

- Electronic speed control
- Linear ejector (option)
- Manual longitudinal adjustment of the upper and lower carriers
- Control panel with touch-screen

+ Transfer station with integrated blank ejection (option):

- Servo drives ensure maximum precision
- Transport level is lowered for ejection
- All folding carton types and sizes can be ejected at maximum speed



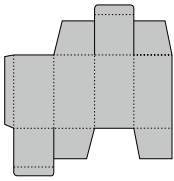
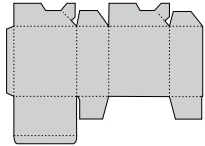
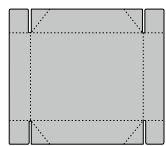
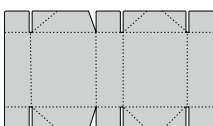
9 Collecting and pressing station For sizes 55, 80 and 115 A, B:

- 600 mm (23.62 in) wide pressing belt
- 2.3 m (90.55 in) pressing section
- Manual setting of pressing zones
- Soft rubber belt for precise pressure compensation (option)

+ For size 115 C:

- 900 mm (35.43 in) wide pressing belt
- 3 m (118.11 in) pressing section
- Four pressure zones with fine adjustment
- Soft rubber belt for precise pressure compensation (option)
- Optionally also available for Diana Smart 80/115 A or B version

Typical Applications and Dimensions

Applications		Diana Smart 55	Diana Smart 80	Diana Smart 115
Straightline carton				
W × L (max.)		550 × 600 mm (21.65 × 23.62 in)	800 × 600 mm (31.50 × 23.62 in)	1,150 × 600 mm (45.28 × 23.62 in)
W × L (min.)		75 × 55 mm (2.95 × 2.17 in)	75 × 55 mm (2.95 × 2.17 in)	75 × 55 mm (2.95 × 2.17 in)
W × L (min.) (with small carton device)		45 × 55 mm (1.77 × 2.17 in)	45 × 55 mm (1.77 × 2.17 in)	45 × 55 mm (1.77 × 2.17 in)
Lockbottom carton				
W × L (max.)		550 × 800 mm (21.65 × 31.50 in)	800 × 600 mm (31.50 × 23.62 in)	1,150 × 600 mm (45.28 × 23.62 in)
W × L (min.)		146 × 80 mm (5.75 × 3.15 in) Version A ¹	146 × 80 mm (5.75 × 3.15 in)	146 × 80 mm (5.75 × 3.15 in)
		190 × 80 mm (7.48 × 3.15 in) from version B with small carton device		
4-corner collapsible carton				
W × L (max.)			800 × 680 mm (31.50 × 26.77 in)	1,150 × 680 mm (45.28 × 26.77 in)
W × L (min.)			120 × 110 mm (4.72 × 4.33 in)	120 × 110 mm (4.72 × 4.33 in)
6-corner collapsible carton				
W × L (max.)			800 × 630 mm (31.50 × 24.80 in)	1,150 × 630 mm (45.28 × 24.80 in)
W × OL (min.)			250 × 130 mm (9.84 × 5.12 in)	250 × 130 mm (9.84 × 5.12 in)

¹ In connection with 900 mm (35.4³ in) belt width outfeed. See technical information.

For value retention and maximum performance:

Service agreements

- Service agreements offer security and peace of mind, while at the same time providing you with the benefits of full cost control and simple administration
- Servicing by highly trained technicians
- Exclusive use of original service parts
- Protection of your machine investment
- Retention of a high resale value

 heidelberg.com/service-agreements

Features and benefits.

Diana Smart 55/80/115.

Quality



Highest quality

and accurate ejection due to inline inspection of the entire print image with the new Diana Inspector – also suitable for highly reflective surfaces.

Highest precision thanks to single servo drives.

Braille embossing possible in the process:

One module for two parallel embossing applications (also retrofittable).

More than

100 years

of experience in building folder gluers.

Productivity

More than

150,000

straightline cartons per hour.

Smallest processable **carton width: 45 mm (1.77 in).**

Fast processing.



Up to

600 m/min

belt speed (Diana Smart Speed Package).

User-friendliness

Fully automated set-up with AutoSet. Time savings of more than

50 %.



Safe operation.

Confirmed by GS approval.

Publishing information

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