

mita**book**

Hardcover production line without a wing



digi**book**⁺
technology

mitabook

Hardcover production line without a wing

mitabook book production line

The mitabook is a fully automatic hardcover casing-in machine, specially designed to economically produce hardcover photo books and children's books in small quantities. The mitabook fills the gap between semi-automatic binding equipment and sophisticated hardcover production lines used in high volume production.

Special features

- ▶ The „wingless casing-in“ concept avoids marks and scratches on the sensitive images in photo books. In addition, PUR adhesive-bound book blocks can be processed even before the full hardening of the adhesive
- ▶ Only one operator is necessary to feed book blocks, feed cases and take off the finished books, which are pressed and formed in the joint area
- ▶ Simple operation and motorized, rapid size change using a touch screen. Storage of formats to enable reproductions with absolute precision after size change
- ▶ Use of hot melt avoids moisture penetration into the case or book block
- ▶ Gluing station does not require cleaning, either during interruptions or at end of shift
- ▶ Extremely space-saving: only 2 m x 2,6 m (7 ft x 9 ft) required



Workflow

Book cases and book blocks are placed into the respective feed hoppers. The book block and matching case are simultaneously fed into the casing-in station where their compatibility can be checked with barcodes (optional). The book block lingers unopened in horizontal waiting position above the case transport, where it is perfectly aligned to register.

Two register fingers push the case, with its spine perpendicular to the transport direction, under and through the MELT JET gluing station. This unit sprays hot melt on the exact area of the case where the book block end-sheets will be placed on. Additional hot melt can also be applied to the joint area (optional) for a stronger hold.

The register fingers push the perfectly aligned case below the book block's waiting position, and the pushers, which from this point forward transport the case and block as one, have a gap for the case to allow for correct positioning and case overlap.

The book block is released from its waiting position onto one half of the case below, in perfect register. Then the other half of the case is folded around and over the book block resulting in front edge alignment.

After initial pressing and a change of moving direction of 90° the cased-in book is now ready for the rotary joint forming and pressing station. The previously applied hot melt (optional) allows for refined joint shaping. The finished book is delivered back to the operator side of the machine.

Throughout the machine the book components are electronically checked for presence and precise positioning in order to avoid spoilage.

Options

- ▶ **Barcode recognition:** to assure case and block correspondence - in the event of an error, the faulty component can be removed easily without damage
- ▶ **Hot melt glue application nozzles:** an additional glue line in the joint allows for a more stable and durable hold
- ▶ **Automatic thickness measurement:** by measuring block thickness and spine width the machine is able to adapt thickness dimensions "on the fly" for continuous production. This allows for drastically reduced set up times when producing books with the same height and width dimensions (if only the thickness changes);
- ▶ **Joint forming station mitaform:** with heat and pressure this unit can reactivate the hot melt in the joint to make it more pronounced and precise.

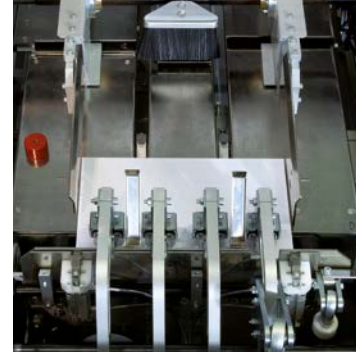
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Checking of component matching with barcode sensors (optional)



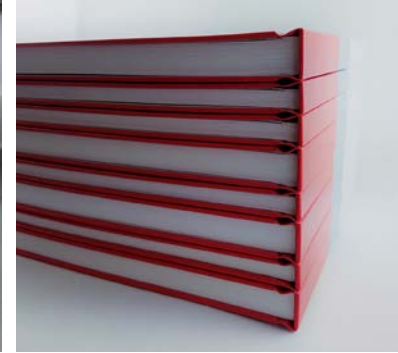
MELT JET hot melt gluing



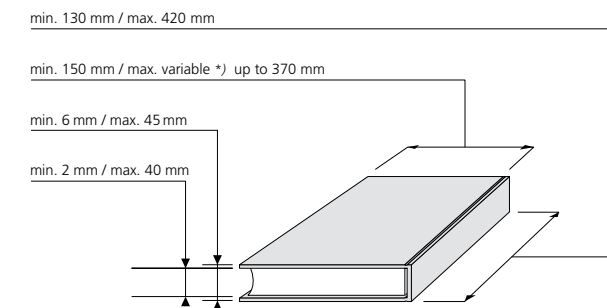
Closing and initial pressing of the cased-in book prior to joint-forming



Joint forming station mitaform (optional)



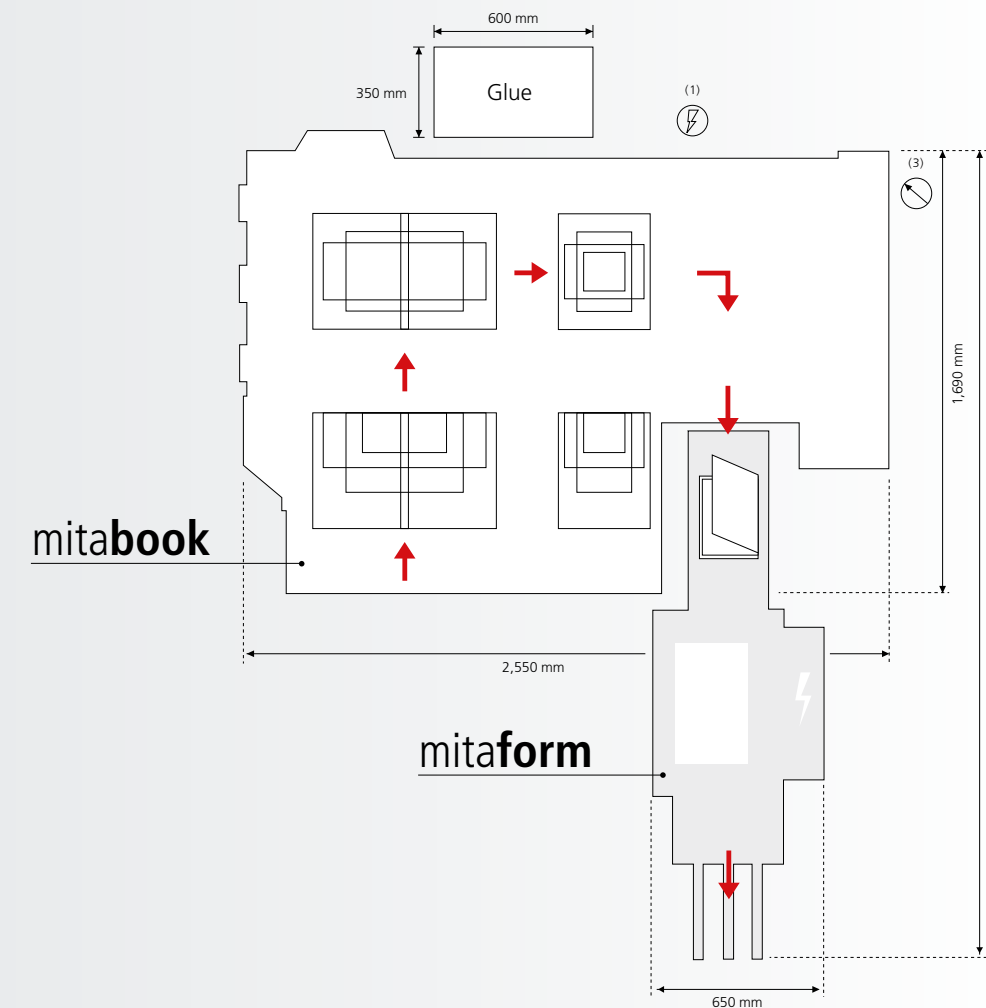
Automatic production mode with blocks of different thicknesses and spine in-lays with corresponding widths (optional)



*) Limitation as a result of spine width and max. open case size.
 Maximal book width: 370 mm (at minimum spine-width)



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Technical specifications

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Production speed	up to 7 books/minute – depending on size
Book block (width x height x thickness)	min. 145 mm x 125 mm x 2 mm (min. 5 ¾" x 4 15/16" x 5/64") max. 350 mm x 410 mm x 40 mm (max. 13 ¾" x 16 1/8" x 1 9/16")
Open case (width x height x thickness-spine)	min. 320 mm x 130 mm x 1,5 mm – 6 mm (min. 12 5/8" x 5 1/8" x 1/16" – 1/4") max. 750 mm x 420 mm x 5 mm – 45 mm (max. 29 1/2" x 16 1/2" x 3/16" – 1 3/4")
Finished book (width x height x thickness)	min. 150 mm x 130 mm x 6 mm (min. 6" x 5 1/8" x 1/4") max. variable *) x 420 mm x 45 mm (max. variable *) x 16 1/2" x 1 3/4")
Electrics	7 kW (400 V, 3 PNE, 50 Hz)
Air consumption	110 NI/min. (6 bar)
Floor space	2 m x 2,6 m (7 ft x 9 ft)
Weight	approx. 1'000 kg

*) Limitation as a result of spine width and max. open case size.
Maximal book width: 370 mm (14 1/2") (at minimum spine-width)

Technical specifications subject to change without notice

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