Technical data



Perfect binder KM 200 5,000 cycles/h



KOLBUS Perfect binder KM 200

For the production of brochures and book blocks. Dynamic adjustment axes for continuous fully automatic setting to the varying product thickness, without make-readies. The perfect binder is able to process folded sections or single sheets.

Standard equipment

Copilot system with several touchscreens

- Choice of production mode
- Format memory
- Operator guided changes of the production mode
- Automatic format and hang-out adjustments
- Automatic adjustment of the glue length for spine and side gluing unit
- Automatic adjustment of cover register to book block
- Operating instructions
- Product counter (job, shift and start/stop counter)
- Indication of machine and material flow malfunctions
- Operator guided malfunction elimination

Barcode processing

- Code-matching from block to cover
- Servo-controlled drive technology based on Siemens SIMOTION D
- Active Line Module for energetic recovery of operating power in the line network
- Safety standard according to CE directives and specifications

Number of clamps

- Perfect binder with 26 clamps
- Perfect binder with 38 clamps

Infeed

- Infeed with 1,000/2,600 mm hand feeding unit, feeding conveyor and star feeder
- Infeed incl. coupling to a gathering machine and with 1,000/2,600 mm hand feeding unit via feeding conveyor and star feeder

End sheet gluing

- Station for using the nozzle end sheet gluing system, movable, operating of the nozzle applicator system is integrated in the copilot of the perfect binder. Alternative equipment
 - □ PUR-hotmelt nozzle end sheet gluing system with integrated premelter
 - □ EVA-hotmelt nozzle end sheet gluing system with integrated premelter

Optional equipment for nozzle end sheet gluing system: Plasma treatment for surface treatment

of the book block before nozzle end sheet gluing and nozzle side gluing for PUR-gluing system

End sheet feeder

- End sheet feeder for feeding of pre-folded end sheets on both sides
 - End sheet grammage: min.: 100 g/m² | max.: 180 g/m²
 - Two end sheet magazines
 - □ Miss sheet and double sheet control
 - $\hfill\square$ Suction belts for vertical transport of the end sheets
 - □ Vertical lifting device for the end sheet feeder
 - $\hfill\square$ Separation drums with servo motorised drive
 - □ End sheet off-set height to the unmilled spine: 4 mm

Measuring station

 Measuring station: Measuring station to collect required size adjustments

Spine processing stations

- Milling station (swivellable for tool change) with adjustable front joint pressing disc and pressing disc at the back, incl. back edge adjustment, with exhaust control, prepared for the connection to an extraction unit
- Alternative/optional equipment for milling station:
 Milling head for dust cutting (Besides dust,
 - process-related, bigger pieces can be cut-off)
 - □ Roughening tool
 - Notching tool
- Spine processing station for roughening and notching (automatic correction of the notching distance) with back edge adjustment, prepared for the connection to an extraction unit (with 1 roughening and 1 notching tool)
- Spare tool for spine processing station
 - □ Roughening tool
 - □ Notching tool
- Brushing station with roller brush, prepared for the connection to an extraction unit

Gluing stations

- Spine gluing unit
 - □ EVA-hotmelt
 - D PUR-hotmelt

Spine gluing units movable, with two glue application rollers, controlled doctor blades and a counter-clockwise running heated spinner roller, incl. glue level adjustment control with KOLBUS-interface, incl. premelter, side swelling device for gluing of book block spine edges

 Twinflex-cold glue spine gluing unit for two-shot-gluing to apply the primer on thread sewn and milled products, movable,

- □ 1 application roll
- □ 1 application roll with rubber coating
- □ adjustable doctor blade
- □ large counter-clockwise running rotating brush

□ glue level adjustment control with KOLBUS-interface Note:

For the "Twinflex" gluing an adequate IR drying distance (length and power) and one cold glue pump is required, if an EVA-hotmelt spine gluing unit or a PUR-hotmelt-glue spine gluing unit is behind the "Twinflex" cold glue spine gluing unit.

- Interchangeable spine gluing unit (same equipment as above)
- Side gluing unit
 - Station for using the nozzle side gluing system, movable, operating of the nozzle applicator system is integrated in the copilot of the perfect binder. Standard equipment:
 - □ Operating unit for servicing and washing
 - □ Slot nozzle/operating in contact Application width 3 mm
 - Application nozzles variably swivelling to the block (0° - 8°)
 - Alternative equipment
 - □ PUR-hotmelt nozzle side gluing system with integrated premelter
 - □ EVA-hotmelt nozzle side gluing system with integrated premelter
 - Alternative and optional equipment
 - for the side gluing unit:
 - $\hfill\square$ 1 pair of interchangeable rails for the slot nozzle,
 - application width 1,5 mm/3 mm/5 mm/7 mm/11 mm Accessories for gluing units
 - □ Cold glue pump for spine gluing unit, movable, for automatic refilling of cold glue
 - □ Exhaust hood for PUR-hotmelt fumes for cleaning the gluing units outside of the machine
 - Device for exhausting the EVA-hotmelt fumes for EVA-hotmelt gluing units (Not suitable for exhausting PUR hotmelt fumes)

Spine strengthening

- Lining station with automatic pre-pull and longitudinal and cross cutting device, suitable for the production of lining material and gauze.
 - □ Servo controlled lining feed length and drive
 - □ Lining feed control
 - $\hfill\square$ Miss control for lining material
 - □ Venturi-nozzle for removing of lining stripes

Drying/heating

- IR heater in the curve area
 - (to extend the open time of the hotmelt)
- IR heater before and in the curve area
- IR heater 18 kW for intermediate drying after the first cold glue application, with special heaters for high energy density, overall length: 2,700 mm

Cover feeder

- Rotary cover feeder
 - Separation from an angled position stack
 - □ Miss sheet and double sheet control
 - $\hfill\square$ Low stack level control in the magazine
 - $\hfill\square$ Cycled blast air in the magazine
 - $\hfill\square$ Servo motorised drive
 - $\hfill\square$ Motorised adjustment of the lateral stops and suckers
 - $\hfill\square$ Motorised adjustment of the camera position
 - □ Separator tips and separator knives operated from the outside
 - □ Magazine jogging
 - $\hfill\square$ Automatic adjustment of the cover alignment
 - □ Transport zone allowing a precise alignment for the transfer to the scoring station
 - □ Cover reject unit

Scoring station

- Scoring station for 4 scores or 6 scores and cover transport with pressing roll
 - □ Motorized asymmetric adjustment
 - $\hfill\square$ Motorized correction of the zero line
 - □ Scoring depth adjustable via scales
 - □ Servo controlled cover alignment

Pressing station

- Ist Pressing station for pressing the lining strip or cover to the block spine as well as laterally to the block. Integrated device for holding the pressing rails.
- 2nd Pressing station for pressing the lining strip or cover to the block spine as well as laterally to the block. Integrated device for holding the pressing rails.
- Pressing rails
 - Mode of operation brochure milled or milled without side score
 - Mode of operation brochure thread sewn
 - □ Mode of operation block production milled
 - Mode of operation block production thread sewn

Delivery

- Gripper carriage delivery for the connection with a lay-down device or a transport system as cooling and drying unit
- Lay-down device (plate chain) to the left, automatic speed adjustment, laterally adjustable, without shingled stream function

Device to re-print barcode

after lay down device, length 1,500 mm

- Leibinger Jet3 printer, for the processing of black ink Automatic adjustment of the distance between printer head and book block depending to the book block thickness. A service contract for the printer is recommended.
- Barcode

the position of the barcode on the book block can vary position parallel to the book block height adjustable via copilot position parallel to the book block width manually adjustableCamera

- Control of printed barcode
- Product rejection via perfect binder
- Remote diagnosis / Coupling with model AFS 702
- ▼ Continuous automatic adjustment to thickness variations



Technical data

Mechanical speed

- up to 5,000 cycles/h
- up to 3,500 cycles/h (Infeed via star feeder) Block single sheet grammage min.: 80 g/m² | max.: 220 g/m² Net production is subject to variable product sizes, materials, machine equipment etc.

Grammage for covers

- min.: 80 g/m²
- with 2 scores max.: 300 g/m²
- with 4 scores max.: 350 g/m²

Infeed via star feeder

- Block format range
- Width x height x thickness max. 310 x 380 x 60 mm | min. 140 x 150 x 1.5 mm Cover format range
- Width x height max. 680 x 370 mm | min. 212 x 150 mm

Infeed via ZU

- for products with constant thickness Format range
- Width x height x thickness max.: 310 x 380 x 50 mm | min.: 120 x 150 x 1.5 mm Cover format range
- Width x height max.: 680 x 380 mm | min.: 212 x 150 mm

Block hang-out after spine processing

min. 10 mm | max. 20 mm

The customer has to provide:

- **Compressed air required**
- 35 Nm³/h
 - Compressed air requirement depends on machine equipment and production mode

Factory line pressure

6 bar

Compressed air supply

See extra sheet

Electrical equipment

■ 3 phase, 400 volt/N/PE, 50 cycles

Required exhaust capacity

- Spine processing stations complete: 3,000 m³/h, 1,800 Pa./2x Ø 160 mm Main miller 1,800 m³/h, 1,800 Pa./Ø 160 mm Spine finishing units 1,200 m³/h, 1,800 Pa./Ø 160 mm
- Hotmelt fume for 1 spine gluing unit and 1 side gluing unit combined: 400 m³/h, 200 Pa./Ø 160 mm
- Nozzle end sheet gluing system Plasma treatment for surface treatment of the book block before nozzle end sheet gluing 40 m³/h
- Exhaust hood for PUR-hotmelt fumes for cleaning the gluing units outside of the machine 500 m³/h, 200 Pa./Ø 160 mm

Footprint perfect binder KM 200 26 clamps



- 1 Connection compressed air
- 2 Connection compressed air
- 3 Connection compressed air
- Off-cut extraction
- 6 Off-cut extraction
- 6 Fume extraction

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