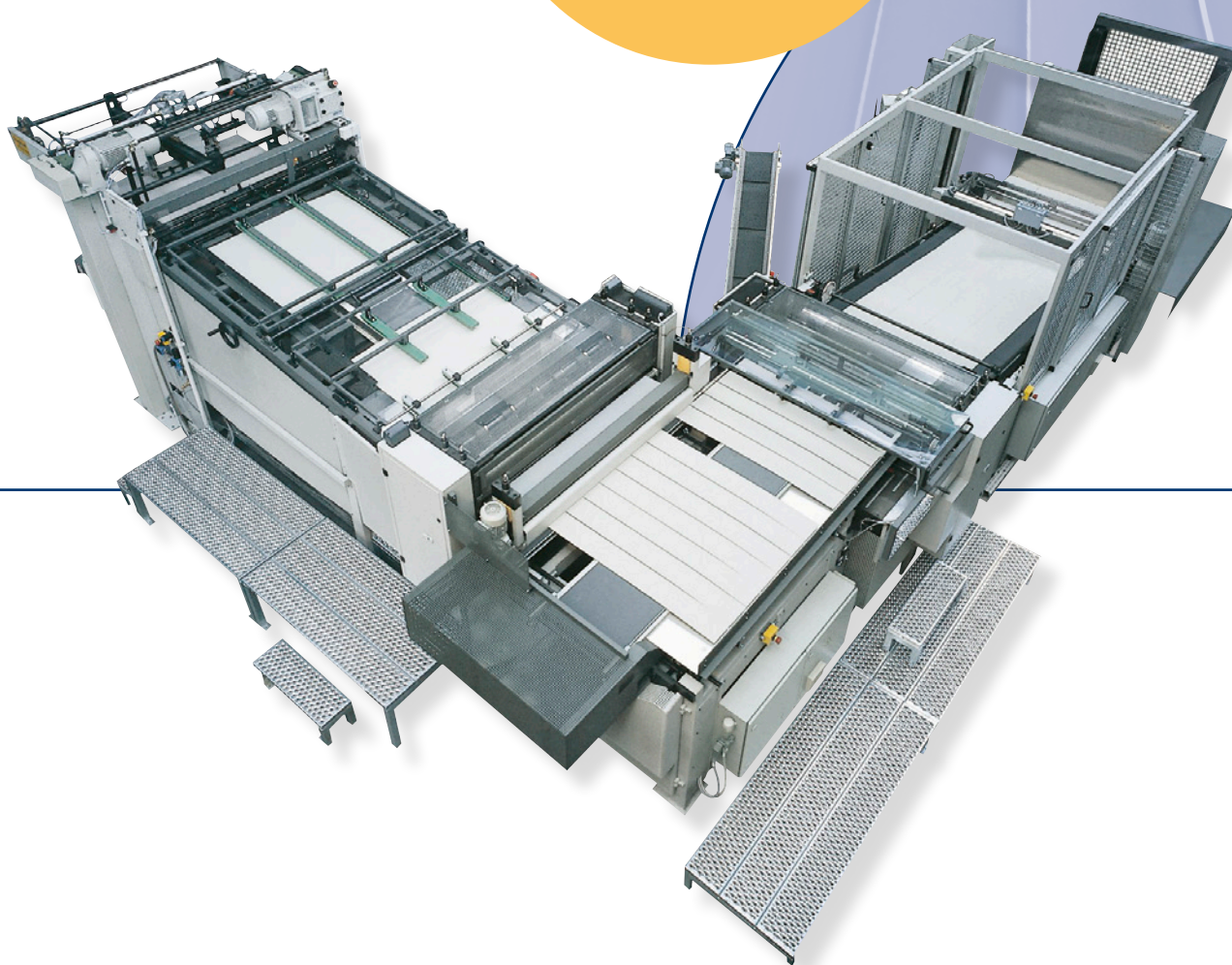


BOARD CUTTING LINE

For fully automatic cutting and palletising of finished blanks from cardboard in one operation.

Board cutting line PK-PK 170 • max. 220 cycles/min

PK-PK 170
max. 220
cycles/min



Technical data



KOLBUS BOARD CUTTING LINE

PK-PK 170 for fully automatic cutting and palletising of finished blanks from cardboard in one operation.

Equipment variations

Standard equipment

Board feeder with sheet alignment

- Special feeder with downstream sheet alignment and built-in suction head, adjustable to sheet length (designed for a max. stack waviness of ± 15 mm)
- Pallet platform driven by 2 ball screws
- Manual lifting platform adjustment at the feeder for processing boards from laterally offset stacks, adjustment range offset possibility ± 40 mm
- Feeder cycle speed is infinitely variable
- Front side feeder loading
- Central format width adjustment of the sheet alignment
- Sheet transport via toothed belts with pusher fingers and lateral guides
- Double board control
- Hinged table delivery side for free access to the 1st cutting station

1st cutting station for strip cutting

- Longitudinal cutter with circular knives in pairs on the upper and lower knife shaft (100 mm diameter)
- Central and simultaneous adjustment of upper and lower knife shaft
- 8 pairs of split knife holder including divided circular knives
- 2 circular knives and 1 knife sleeve as a substitute replacement
- Precisely adjustable steel infeed and outfeed rollers (80 mm diameter)
- Edge strip choppers manually adjustable via spindle (up to 100 mm edge strip width) with jam monitoring in the funnels of the edge strip choppers
- Operating elements on both sides of the machine
- Cutting waste conveyor belt

90° transfer

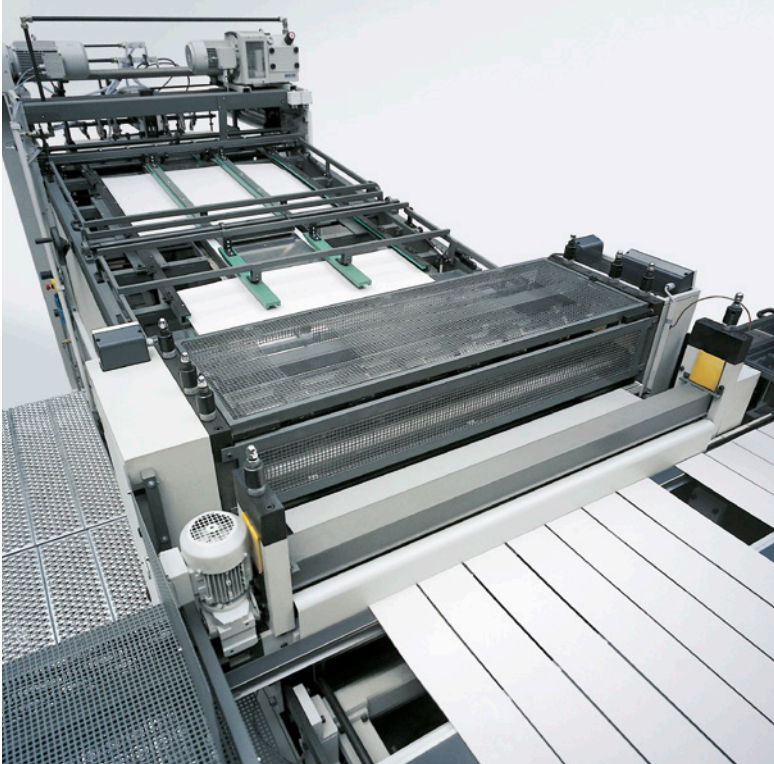
- Format dependent adjustable pair of outfeed rollers for central infeed into the 2nd cutting station
- Belt conveyor system for cycle free transport
- Easy format adjustment
- Reliable cross transport even at high cycle rate

2nd cutting station with strip magazine for cutting strips into finished blanks

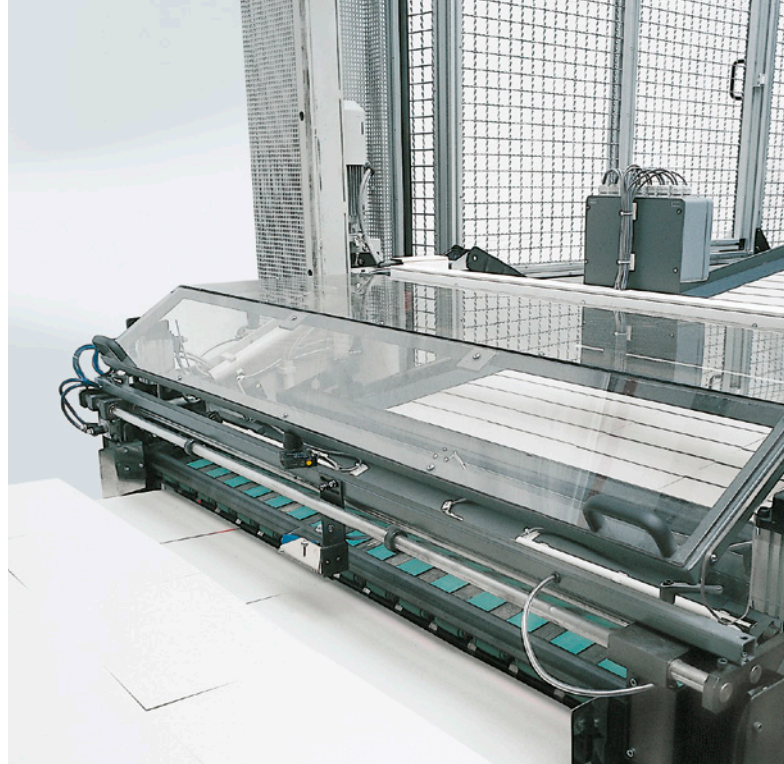
- Longitudinal cutter with circular knives in pairs on the upper and lower knife shaft (100 mm diameter)
- Central and simultaneous adjustment of upper and lower knife shaft
- 10 pairs of divided knife sleeves including divided circular knives
- Precision adjustable steel intake and outfeed rollers (80 mm diameter)
- Infinitely variable throughfeed speed
- Top and bottom filling level control in the strip magazine
- Microprocessor controlled monitoring of the cutting angle accuracy with optical indication in case of exceeded tolerance; programmable machine stop
- Edge strip choppers manually adjustable via spindle (up to 100 mm edge strip width) with jam monitoring in the funnels of the edge strip choppers
- Operating elements on both sides of the machine
- Cutting waste conveyor belt

Palletizer

- Pre-programmable fully automatic positioning of the finished blanks on the pallet
- Opto-electronic monitoring of the shingled stream position
- Conveyor belt with nubbed surface
- Pallet delivery to the left as seen in the direction of material flow
- Control panel left
- Rails, toothed rack and hand wheel for easy movement of the palletizer
- Pneumatically liftable transfer rollers at the palletizer's delivery for improved handling
- Different pallet sizes possible (also 2 pallets side by side/ depending on the material)



1st cutting station



Palletizer

Operating, control and supply units

- Control and drive technology based on Siemens SIMOTION D
- Smart Line Module for feeding drive energy back into the line network
- Automatic speed tuning of the machine modules
- Main operating panel
- Malfunction messages on display
- Keys for manual operation of board feeder and 1st and 2nd cutting station
- Manual operation of the palletizer via main operating panel
- Independent vacuum generator
- Operating platforms
- Central lubrication system with an electric pump at the cutting stations
- Integrated electrical cabinet
- Safety standard according to CE directives and specifications

Alternative equipment

Safety equipment of the palletizer

- Safety fence with electrically locked sliding door
- Special equipment for an optimized operation of the palletizer (palletizer delivery safeguarded without safety fence)
 - Electrical contact floor mats and contact strips
 - Blinds and expansion bellows
 - Clear protection hood at the delivery
 - Free accessibility during production

Strip magazine/feeder in the 2nd cutting station

- Strip magazine with high performance strip feeder max. 480 mm passing through length (strip width)
- Strip magazine with high capacity strip feeder (with pusher driven by a linear motor) max. 700 mm passing through length (strip width)

Optional equipment

- Transport conveyor for cutting waste removal into a container, transport height 1,300 mm
- 1 add. standard circular knife, split (max. 12 pairs per cutting station)
- 1 add. knife holder, split (max. 12 pairs per cutting station)
- Motorized adjustments of the 90° transfer unit by inching operation (from the operating side)
- Motorized adjustments on the board feeder
- Manual knife setting aid (adjustable stop with digital display for the positioning the circular knives)
- Remote Service Gateway / Coupling with model RSG 702

Technical data

Working width

Original board format/board untrimmed size

- Slitting width
min. 600 mm | max. 1,400 mm
- Slitting length
min. 700 mm | max. 1,400 mm

Finished size

- Slitting width
min. 85 mm | max. 1,380 mm
- Slitting length
min. 150 mm | max. 480 mm

Board thickness

- 1 – 4 mm
Depending on board quality and number of cuts

Mechanical speed

- Capacity of the board feeder
max. 60 sheets/min*
- Capacity of the strip feeder
max. 220 cycles/min*

* Net production is subject to sizes, materials etc.
(For small formats tests with sample materials are recommended).

Pallet dimensions

- max. 1,400 x 1,400 mm

Pallet height

- min. 140 mm

Stacking height board feeder and palletizer

- max. 1,800 mm (incl. pallet)

The customer has to provide:

Compressed air requirement 180 Nm³/h
Factory line pressure 6 bar
Compressed air supply see extra sheet

Electrical equipment

3 phase, 400 volt/N/PE, 50 cycles

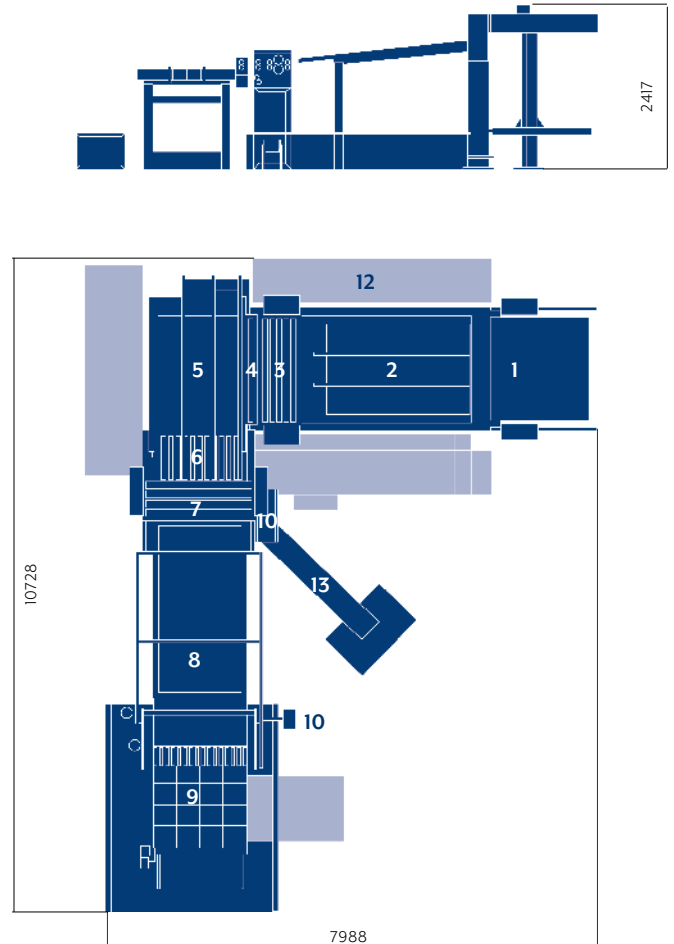
Machine dimensions

- Length 9,800 mm | Width 7,900 mm | Height 2,700 mm

Weight 11,000 kg

Board cutting line PK-PK 170

Side view + Footprint



- 1 Board feeder
- 2 Infeed with sheet alignment
- 3 1st cutting station
- 4 Edge strip choppers
- 5 90° transfer unit
- 6 Strip magazine
- 7 2nd cutting station
- 8 Palletizer
- 9 Pallet truck/trolley
- 10 Conveyor belts for cutting waste transport
- 11 Control panel
- 12 Operating platforms
- 13 Inclined conveyor belt to the container (optional)