EDGE BANDING SERIES

AUTOMATIC EDGE BANDING MACHINE

Ten working groups, fifteen functions, a single pass

Pre-milling, EVA gluing, multi-roller pressing, end cutting, rough and fine trimming, corner rounding, scraping and polishing — completed in one pass, under touch-screen control.

MODEL HE 65 M

0.4 – 3 mm	10 – 60 mm	0 – 23 m/min	20 kW
EDGE TAPE THICKNESS	PANEL THICKNESS	FEED SPEED	TOTAL POWER

/ APPLICATION & USE

The HELEX **HE 65 M** is a fully automatic edge banding machine designed for continuous production of furniture panels. The panel is loaded once and passes through all ten working groups in a single cycle: the edge is pre-milled, the face is protected with separating agent, EVA adhesive is applied, the tape is pressed on by a multi-roller unit, then the leading and trailing ends are cut and the edge is rough trimmed, fine trimmed, corner rounded, scraped and polished. The finished panel leaves the machine ready for assembly, with no manual reworking.

It is built for furniture factories, kitchen and office furniture producers, door and interior joinery workshops and panel cutting-to-size centres — wherever consistent edge quality is required in series production. The heavy welded steel base frame, the chain feed track with rubber pressure pads and the electronically controlled feed drive keep the panel positioned accurately at feed rates of up to 23 m/min.

/ RAW MATERIALS

- Chipboard and melamine faced chipboard
- MDF and HDF panels, lacquered or foiled
- Plywood, blockboard and solid wood strips
- Panel thickness 10 – 60 mm, width from 60 mm
- PVC, ABS, PMMA and melamine edge tape
- Veneer and thin tape from 0.4 mm, solid strip up to 3 mm
- Tape width 12 – 65 mm, coil or pre-cut strip

/ KEY FEATURES

- Ten working groups covering fifteen functions in one pass
- Twin-motor pre-milling for a clean, glue-ready edge
- Thermostatic EVA glue pot with temperature hold
- Separating and cleaning agent sprays for residue-free panels
- Corner rounding, scraping and polishing integrated
- Touch-screen control with piece and length counters
- Five dust extraction outlets, dust collector included

HE 65 M — working units accessible under the full-length hinged safety hoods

/ WORKING SEQUENCE

Each panel is processed in a single continuous pass. The diagrams below show the ten machining operations carried out on the panel edge, in the order in which the panel meets them along the machine.

1 **Pre-milling**
Twin milling units

2 **EVA gluing**
Thermostatic glue pot

3 **Multi-roller pressing**
Driven + idle rollers

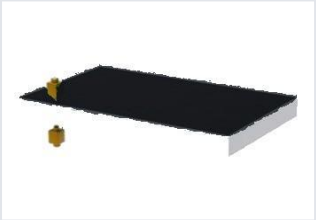
4 **End cutting**
Front and rear saws

5 **Rough trimming**
Tape surplus removed

6 **Fine trimming**
Flat or radius profile

7 **Corner rounding**
Four panel corners

8 **Scraping**
Profile and flat scraper



9 **Cleaning agent**
Glue residue removed

10 **Buffing**
Polished, closed edge

/ RESULT ON THE PANEL

- Straight, glue-ready edge after twin pre-milling
- Closed glue line with no visible joint
- Rounded corners on all four panel corners
- Polished edge, ready for assembly without reworking

/ SET-UP

- Stations selected individually on the touch screen
- Pressure beam set to panel thickness by digital readout
- Feed speed in three preset steps, 0 – 23 m/min
- Tooling changed without dismantling the guards

COMPLETE FUNCTION LIST

Edge tape holding tank / separating agent / pre-milling / heating lamp / EVA gluing / multi-roller pressing / front and rear end cutting / rough trimming / fine trimming / corner rounding / scraping / flat (soft) scraping / edge-line removal / cleaning agent / polishing

> Every station can be switched on or off individually from the touch-screen panel, so the machine can be set for a simple thin-tape job or for a complete finishing cycle on 3 mm ABS without any mechanical changeover.

/ STRUCTURE AND CONFIGURATION

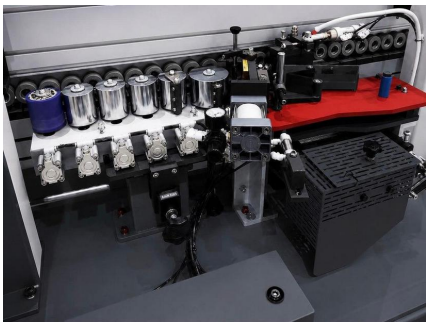
1. **Edge tape magazine and separating agent unit**
   Holding tank for coil tape and pre-cut strip, with automatic tape feed; the separating agent spray protects the panel faces so that no glue residue remains after pressing.
2. **Pre-milling group — two motors**
   Two counter-rotating milling units remove saw marks and produce a straight, dust-free edge before gluing; two pre-milling tools supplied.
3. **Panel pre-heating lamp**
   Warms the panel edge before glue application, improving adhesion on cold panels and in unheated workshops.
4. **EVA gluing station**
   Thermostatically controlled glue pot with digital temperature display, heating and temperature-hold function; glue quantity adjustable at the panel.
5. **Multi-roller pressing section**
   One driven pressure roller followed by a row of pneumatically loaded rollers presses the tape along the whole edge for a uniform, gap-free glue line.
6. **Front and rear end cutting — two saw units**
   Two saw motors on a tracking carriage cut the tape flush at the leading and trailing ends of the panel; two end-cutting saw blades supplied.
7. **Rough and fine trimming**
   Rough trimming removes the tape surplus, fine trimming produces the final flat or radius profile; profile trimming selectable from the control panel.
8. **Corner rounding unit**
   Radiuses the tape at the four panel corners on tape thicknesses of 0.4 – 3 mm; two corner rounding tools supplied.
9. **Scraping, flat scraping and edge-line removal**
   Profile scraper, flat (soft) scraper and edge-line unit remove tool marks and level the glue line for a closed, seamless edge.
10. **Cleaning agent and polishing station**
    Cleaning agent spray followed by two buffing wheels finishes the edge and the adjoining panel surfaces; two polishing wheels supplied.

Control and feed: all working groups are switched on and off from the touch-screen panel. The feed speed is electrically controlled — three preset steps (low / medium / high) within the range 0 – 23 m/min — and the top pressure beam is positioned to the panel thickness by digital readout with automatic start. Six pneumatic regulators with individual gauges set the working pressure of the pre-milling, gluing, end cutting, fine trimming, corner trimming and tracking units. Five dust hoods of Ø 100 mm are connected to the 5.5 kW double-bag dust collector supplied with the machine.

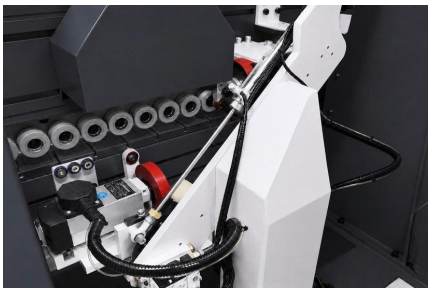
Overall machine length 7300 mm — rear side, hoods closed

/ MACHINE DETAILS

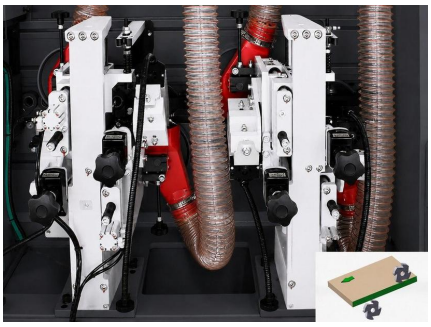
All working groups are mounted on the same welded steel base and are reached through the hinged hoods for tool changes and adjustment.



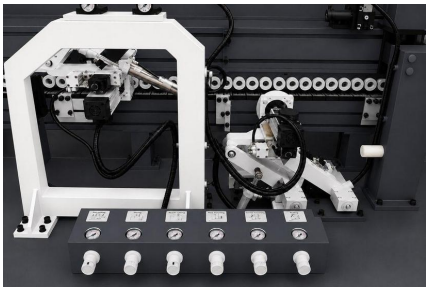
EVA glue pot and multi-roller pressing section with pneumatic loading



End cutting carriage with tracking guide and tape support

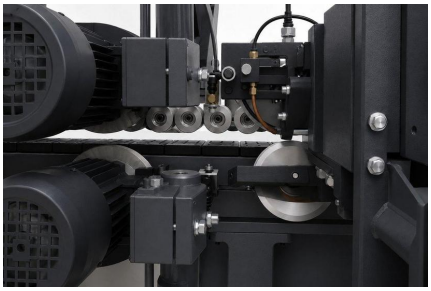


Rough and fine trimming units with individual dust extraction

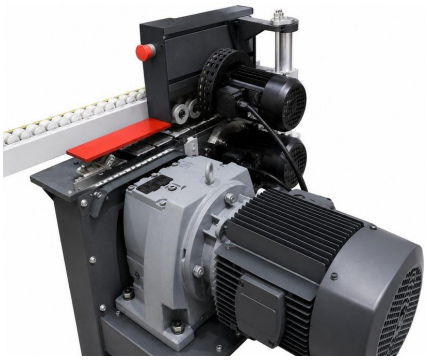


Corner rounding unit and six-station pneumatic regulator bank

Trimming tooling — carbide cutters for flat and radius profiles



End cutting saw motors, tape guided over the chain track



Geared feed drive with electrical speed control 0 – 23 m/min

Touch-screen panel — glue temperature, station selection, pressure beam, length and piece counters

/ DETAIL HIGHLIGHTS

- Individual dust hood on every trimming unit
- Tool changes without dismantling the guards
- Pressure of each group set and read separately
- Tracking guides on the end cutting and trimming units

Six pneumatic regulators with individual gauges cover pre-milling, gluing, end cutting, fine trimming, corner trimming and tracking. Five extraction hoods of Ø 100 mm connect the working groups to the 5.5 kW double-bag dust collector, keeping the glue line and the finished edge free of dust.

/ TECHNICAL DATA

Model	HE 65 M
Type	Automatic edge banding machine
Working functions	Edge tape holding tank, separating agent, pre-milling, heating lamp, EVA gluing, multi-roller pressing, front and rear end cutting, rough trimming, fine trimming, corner rounding, scraping, flat (soft) scraping, edge-line removal, cleaning agent, polishing
Edge banding tape thickness	0.4 – 3 mm
Edge banding tape width	12 – 65 mm
Panel thickness	10 – 60 mm
Panel width	≥ 60 mm
Feeding speed	0 – 23 m/min, electrical speed control
Dust extraction outlets	Ø 100 mm × 5
Compressed air supply	≥ 0.7 MPa
Total power	20 kW
Net weight	2800 kg
Overall dimensions (L × W × H)	7300 × 1050 × 1750 mm
Dust collector (included)	5.5 kW, double bag
Tooling and spare parts	Pre-milling tool × 2, end cutting saw × 2, rough trimming tool × 2, fine trimming tool × 2, corner rounding tool × 2, scraping tool × 2, polishing wheel × 2

/ INSTALLATION DATA

- Overall length 7300 mm; allow approximately 2000 mm of free space at infeed and outfeed
- Working height of the feed track approximately 900 mm
- Compressed air ≥ 0.7 MPa, dry and filtered
- Five extraction connections Ø 100 mm to the 5.5 kW double-bag collector
- Levelling feet on a welded steel base frame

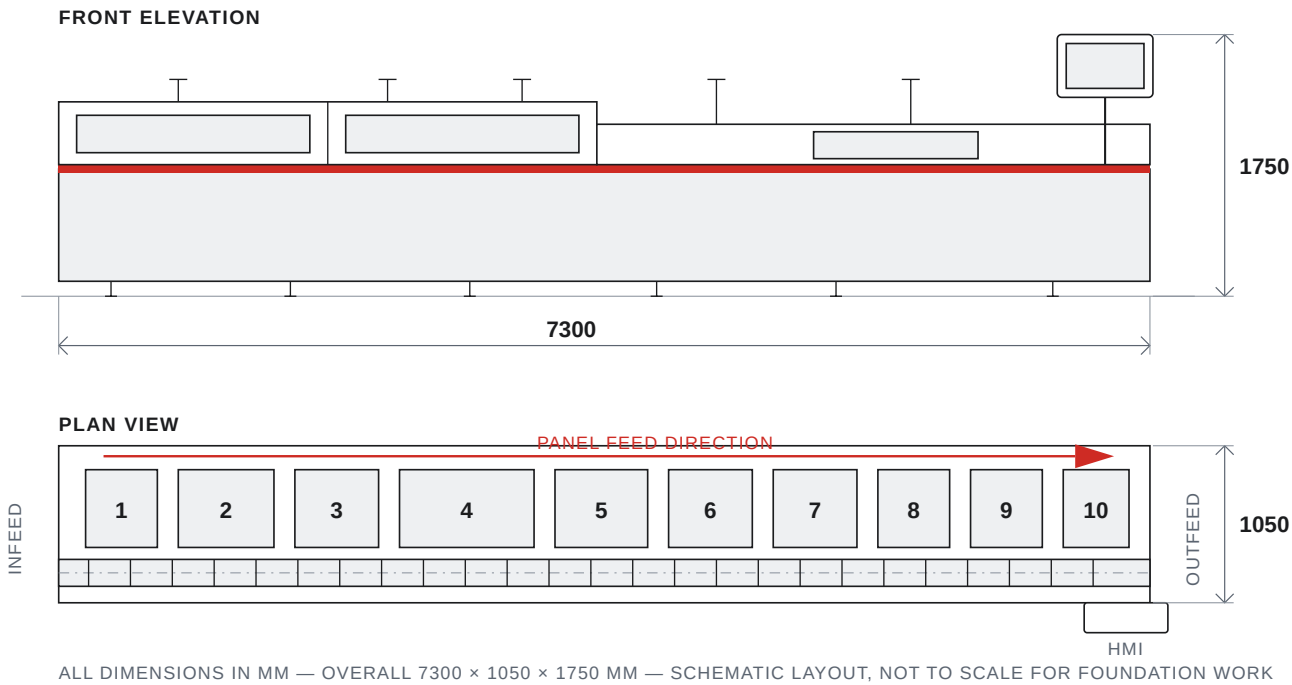
/ SUPPLIED WITH

- Complete tooling set, two pieces of each tool
- 5.5 kW double-bag dust collector
- Touch-screen control with length and piece counters
- Operating and maintenance documentation
- Commissioning and operator training on request

Specifications are given for the standard configuration and may be adapted to the customer's production requirements. HELEX | PROMACH reserves the right to introduce technical improvements without prior notice.

/ LAYOUT DIAGRAM

Overall dimensions 7300 × 1050 × 1750 mm. The numbered blocks in the plan view correspond to the working groups listed under Structure and Configuration.



HE 65 M — front elevation and plan view, dimensions in mm

/ SPACE REQUIREMENT

- Machine footprint 7300 × 1050 mm
- Recommended working area 11.5 × 4.0 m including panel handling
- Operator side along the feed track, service access on the rear side
- Overall height 1750 mm to the top of the control panel

/ CONNECTIONS

- Electrical supply for 20 kW total installed power
- Compressed air ≥ 0.7 MPa
- Five dust extraction outlets Ø 100 mm
- Net weight 2800 kg distributed over the levelling feet

SUPPLIER & CONTACT

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