HELEX | PROMACH

BEAM SAW SERIES

Computer Beam Saw

Program-controlled panel sizing saw
for cutting stacks of flat panels

Panel sizing with program-controlled pusher positioning, 15 kW main saw motor and scoring saw unit — cuts stacks of boards up to 90 mm high over a 3100 x 3200 mm working area, with front air cushion tables for handling heavy panel packs.

MODEL HE 3200 S



HE 3200 S — computer beam saw with front air cushion tables

/ Application & Use

The HE 3200 S is a computer-controlled beam saw for the sizing of panel materials in furniture and interior production. Complete stacks of boards up to 90 mm total height are cut in a single stroke over an effective working area of 3100 x 3200 mm, from full-size panels to finished cutting lists.

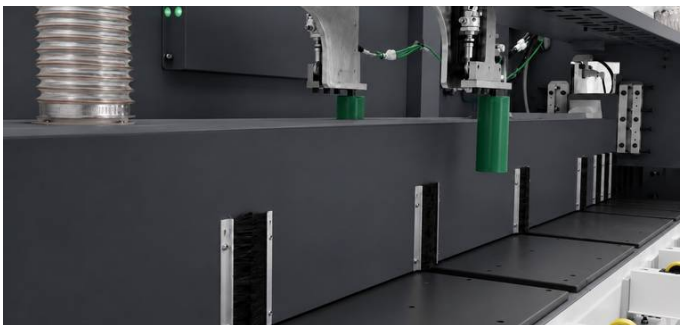
The program-controlled pusher positions the panel stack automatically for every cut, with feeding speeds of up to 90 m/min and saw carriage return of up to 110 m/min. The main saw is driven by a 15 kW motor, while a separate scoring unit with a 2.2 kW motor scores the underside of the bottom panel before the main saw blade makes the cut.

/ Key Features

- Single-stroke stack cutting — up to 90 mm cutting height with a 400 x 60 mm main blade.
- Scoring saw unit (200 x 45 mm blade, 2.2 kW) for chip-free cuts on melamine-faced and laminated panels.
- Program-controlled pusher with grippers positions the stack automatically to the programmed cutting dimensions.
- Front air cushion tables and rear table with support rollers facilitate panel movement and alignment.
- Pneumatic pressure beam clamps the stack along the cutting line during every cut.
- Computer control station with display for cutting programs and machine operation.



Front view — air cushion tables, pressure beam and control station



Pressure beam and clamping section



Pneumatic grippers of the pusher

/ Structure and Configuration

1. Machine body and saw carriage. Welded steel frame with precision guides; the saw carriage carries the main saw with 15 kW motor (blade 400 x 60 mm) and the scoring saw with 2.2 kW motor (blade 200 x 45 mm), cutting stacks up to 90 mm high with carriage return speed up to 110 m/min.
2. Program-controlled pusher. Motor-driven pusher beam with pneumatic grippers positions the panel stack to the programmed dimension at up to 90 m/min feeding speed, for repeatable rip and cross cuts.
3. Working tables. Rear machine table with support rollers and front air cushion tables over the 3100 x 3200 mm working area — heavy panel packs slide into position and against the side alignment.
4. Pressure beam. Pneumatically operated pressure beam clamps the complete stack along the cutting line before every stroke, preventing panel movement.
5. Control system. Computer control station with display and push-button panel for entering and running cutting programs; electrical system 380 V, 3-phase, 50 Hz, total installed power 28 kW.
6. Dust extraction and pneumatics. Two 5.5 kW double-bag dust collectors for the main and scoring saw; compressed air supply ≥ 6.5 kgf/cm² for the pressure beam, grippers and clamping functions.

Motor-driven axes with electrical speed control; pusher positioning and saw cycle controlled by the machine program. Equipment control, safety protection and marking implemented in accordance with the general safety rules for woodworking machine tools.



Rear view — machine table with support rollers and pusher drive



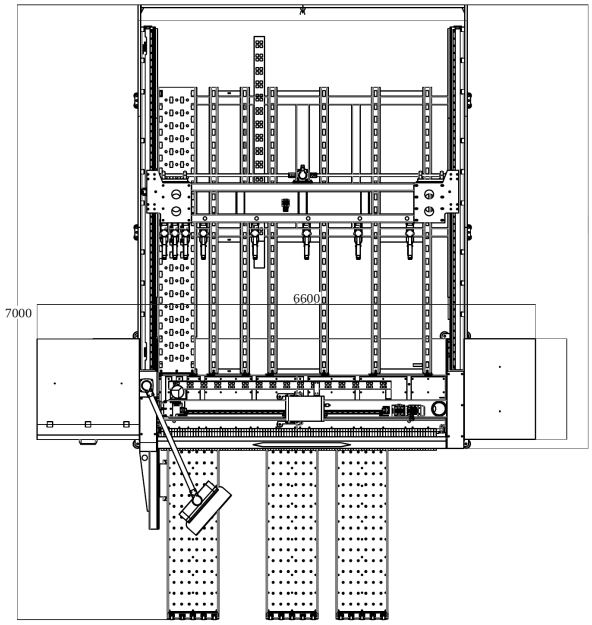
Saw carriage drive motors — main and scoring saw



Pusher grippers and support roller tracks

/ Technical Data

Model	HE 3200 S
Type	Computer beam saw — program-controlled panel sizing saw
Effective working area	3100 x 3200 mm
Max. cutting thickness	90 mm
Main saw blade	400 x 60 mm
Scoring saw blade	200 x 45 mm
Main saw motor	15 kW
Scoring saw motor	2.2 kW
Max. feeding speed	90 m/min
Max. saw carriage return speed	110 m/min
Dust collectors	2 x 5.5 kW double-bag
Compressed air, minimum pressure	6.5 kgf/cm²
Power supply	AC 380 V, 3-phase, 50 Hz
Total installed power	28 kW
Overall dimensions (LxWxH)	6600 x 7000 x 2000 mm
Weight	approx. 6000 kg



Layout diagram — general assembly drawing, overall dimensions in mm



Electrical cabinet — servo drives, PLC and switchgear

Supplier

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