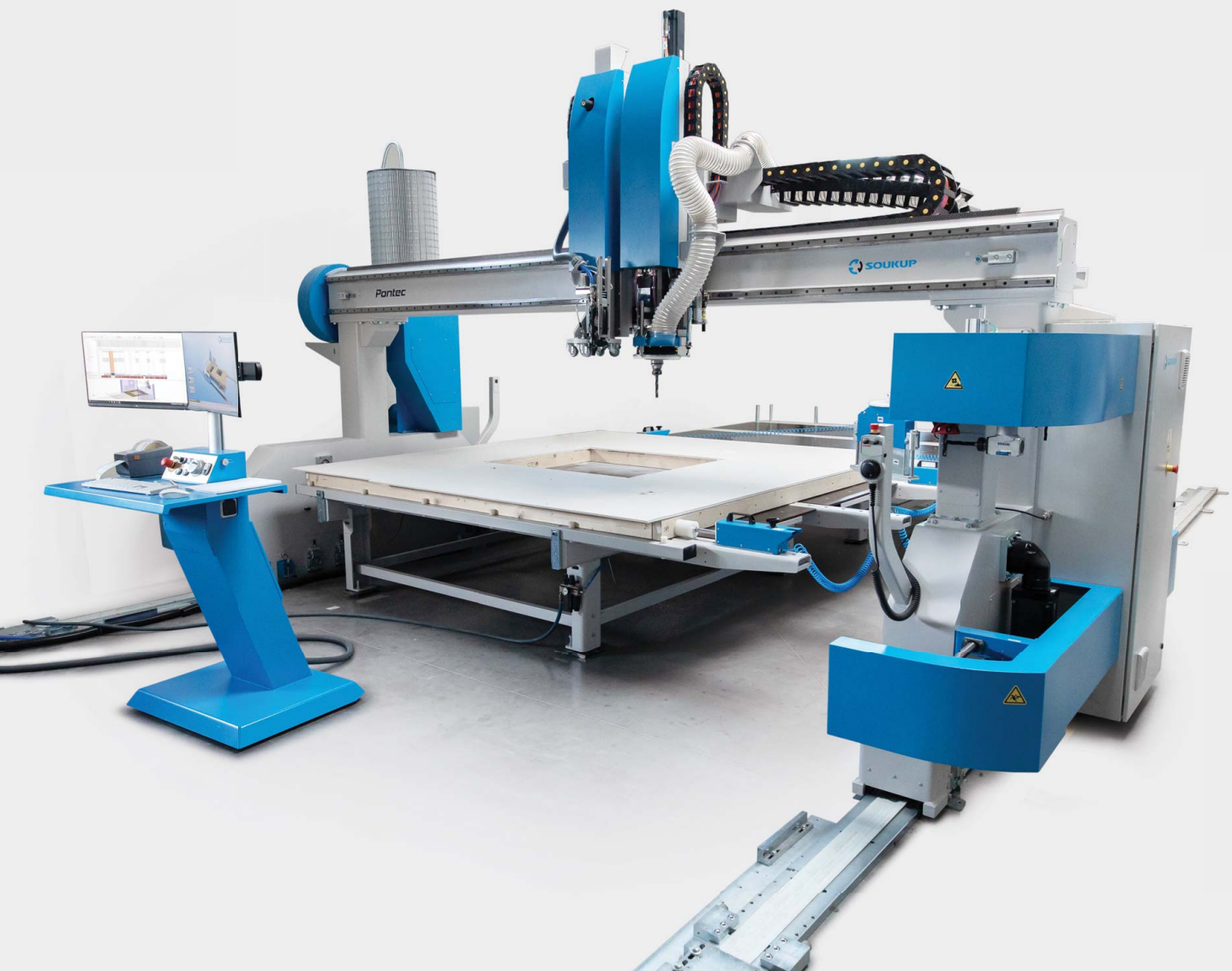




*inspired by
craftsmanship*

Pontec

CNC multifunctional bridge
for prefab buildings production



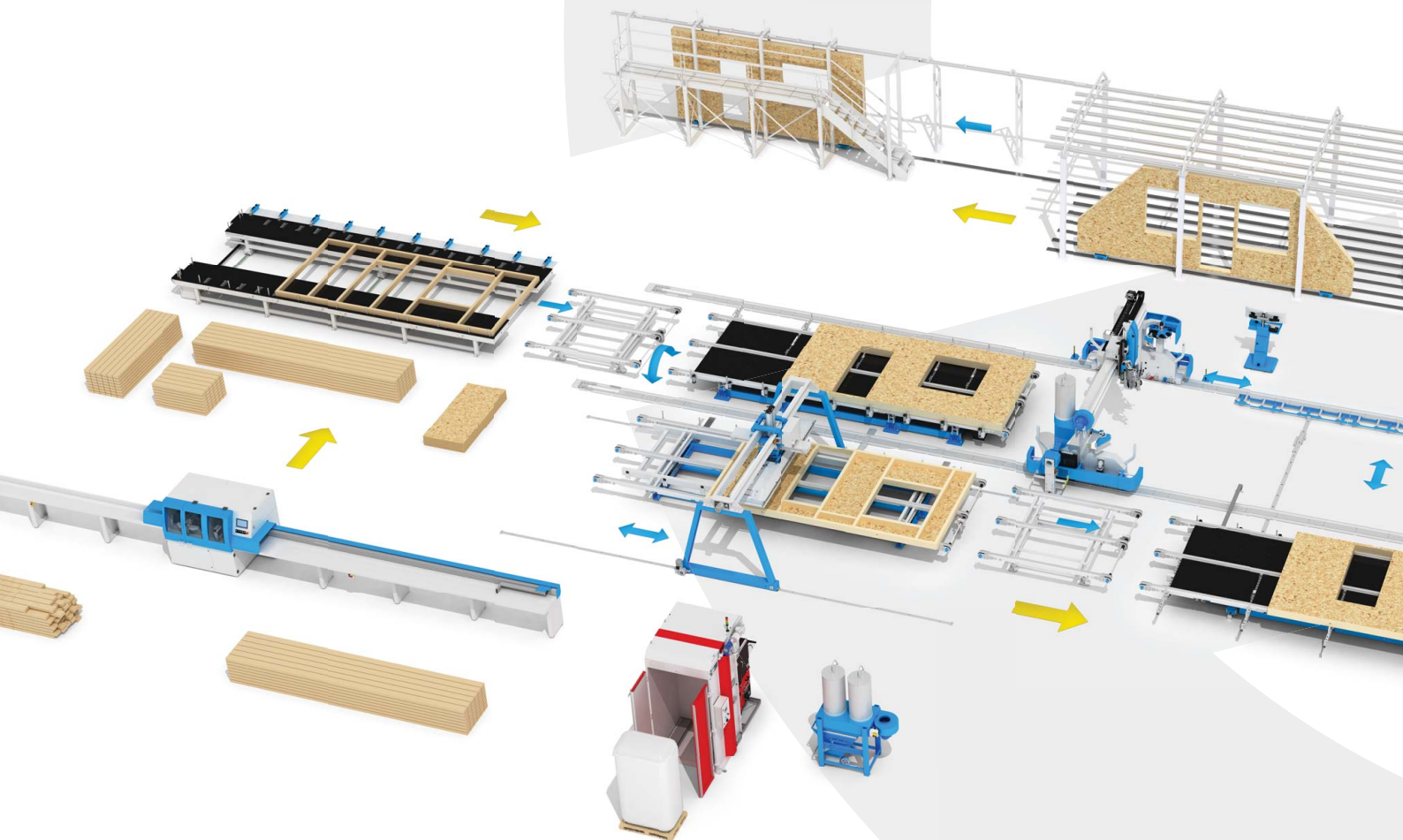
Prefab buildings technology

Equipment for the production of wooden buildings has been manufactured by our company for 15 years. Our equipment can be found in Europe, Asia, the United States and Canada.

We started with [Framer](#) and [Wing](#) assembly tables to speed up and simplify the production process. To make production more precise, we have built a [Crossline 500](#) crosscutting machine with a milling unit so that the elements of the wooden frame fit quickly and precisely into the pre-prepared grooves.

And now we are adding another very important unit to the entire production process - the [PONTEC](#) multifunctional machining portal. The CNC centre processes the sheathing. It staples the covering material, formats and mills with the cutter and saw in all surface layers on both sides of the panel.

The concept of the Pontec machine is modular, variable, fully corresponding to the requirements of the proposed technology.

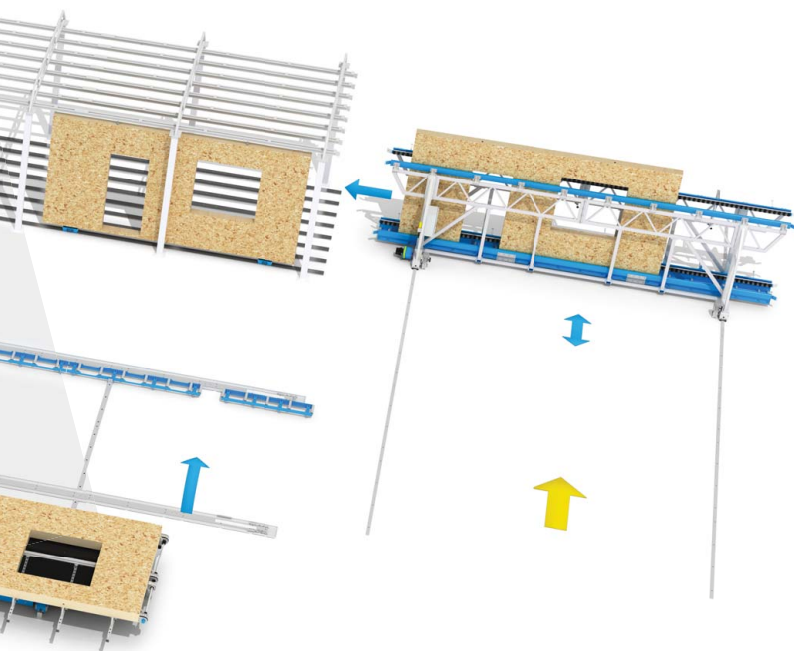
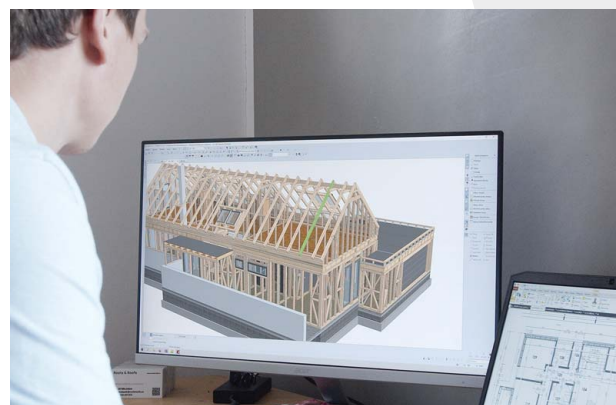


Pontec

CNC multifunctional bridge

Multifunctional CNC portal is designed for machining of wooden building panels. Pontec works in combination with fixed, movable and tilting tables with the possibility of machining both sides of the panel.

It offers maximum productivity, sustainable quality and work efficiency. Individual work units provide stapling of the panels to the frame, formatting to exact dimensions, milling and drilling all necessary construction holes. All this in a fully automatic process and with maximum precision. Production data is simply imported from CAD design programs in BTL format. What workers did manually with hand tools is now fully automated.



video



Pontec

The machine is equipped in the basic configuration with a liquid cooled milling spindle, a C-axis for the use of turning aggregates, a rotary tool changer for the exchange of 8 tools. The second working unit is a stapling, screwdriving or nailing tool. The machine can be extended with a saw unit with a higher cutting diameter suitable for fibreboard insulation or with an additional stapling (nailing) unit. The use of automatic change of pneumatic tools is convenient.

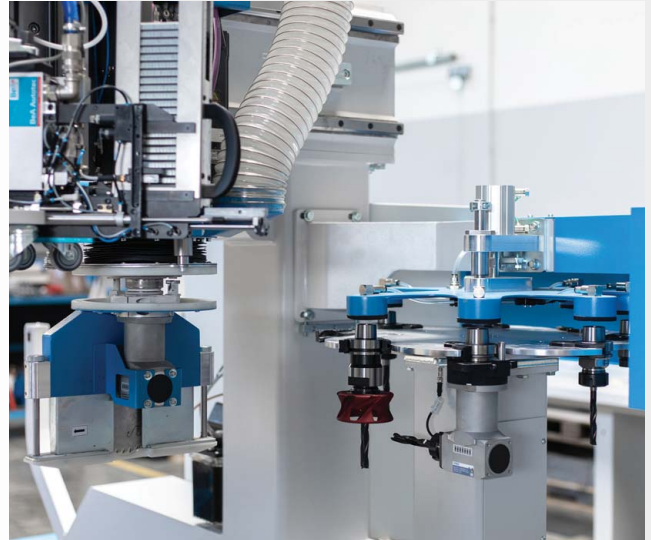
The machine is supplied with an integrated extractor suitable also for plasterboard. The robust construction corresponds to industrial use. X-axis movement uses two synchronised servomotors with nylon belts. The Y axis is guided in precision linear bearings with gears. The milling unit is driven in the Z axis by a ball screw servomotor, the stapler by a pneumatic piston. The entire machine is mounted as part of an individually designed production line. Safety devices prevent collisions when the operator enters the working area and ensure that the machine stops when it is moving.



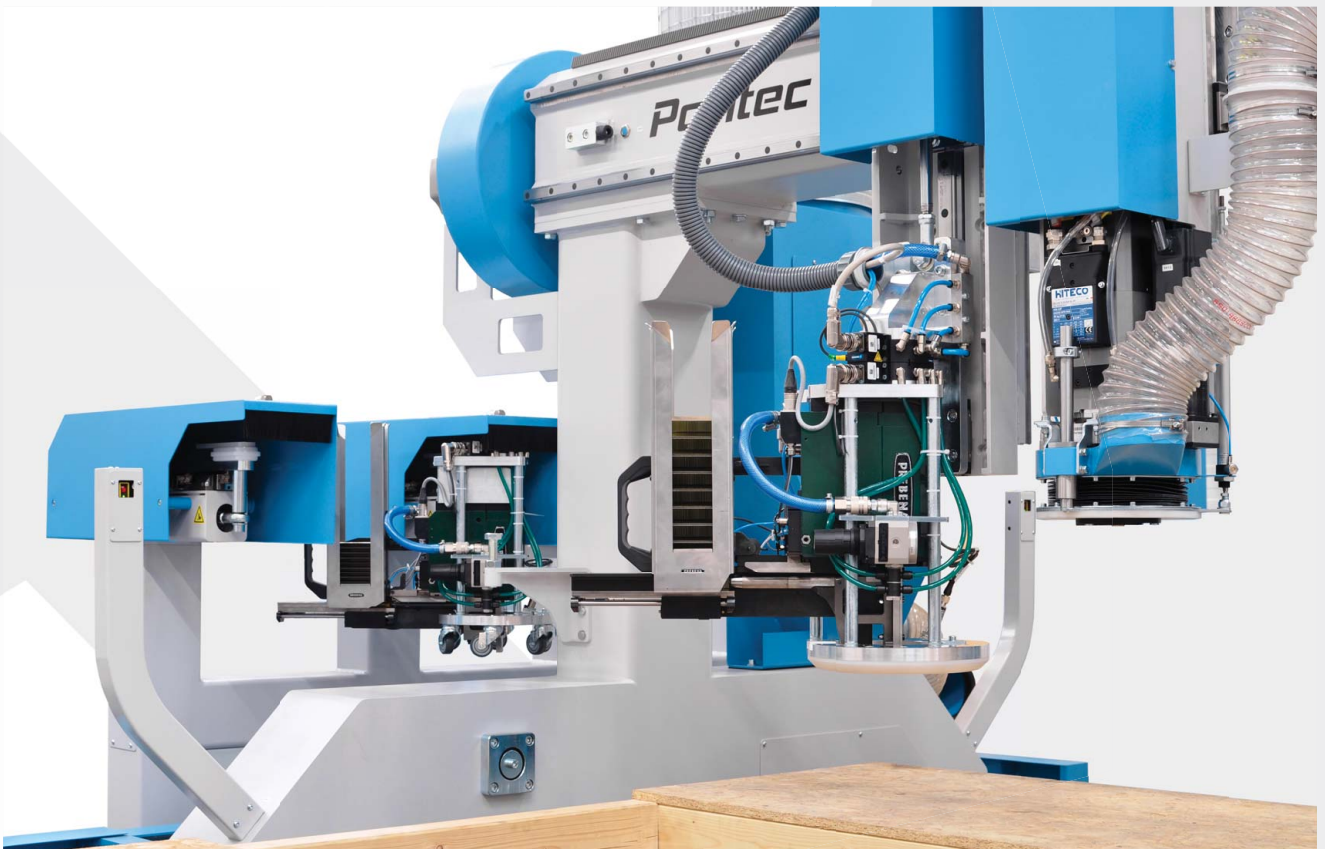
Saw unit ø 250 mm, HSK 63F with integrated extraction cover



Automatic toolchanger with 8 positions for tools and aggregates



The linear pneumatic aggregate magazine offers space for 4 pneumatic tools. Selection and exchange of the required tool is automatic and program controlled. This addition to the PONTEC CNC portal provides the possibility of selecting from several types of fasteners according to the technological requirements of the design panels. The automatic changeover guarantees variability when using different types and lengths of staples and nails, even in the case of multi-layered compositions of different materials in a one panel.



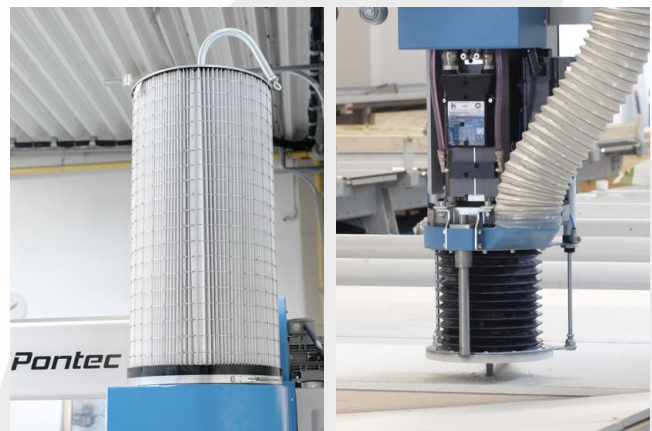
Determination

- All types of wooden frame panels: wall, ceiling, roof, floor
- Suitable for panels with wooden, gypsum and combination cladding

Function

- Fully automatic control of the complete work cycle gradually performs all the necessary operations on the panel cladding specified in the program
- Stapling of board material to a wooden frame
- Perimeter formatting
- Cutting holes for construction fillings using a circular saw or rotary shank cutter
- Drilling and milling of required construction holes

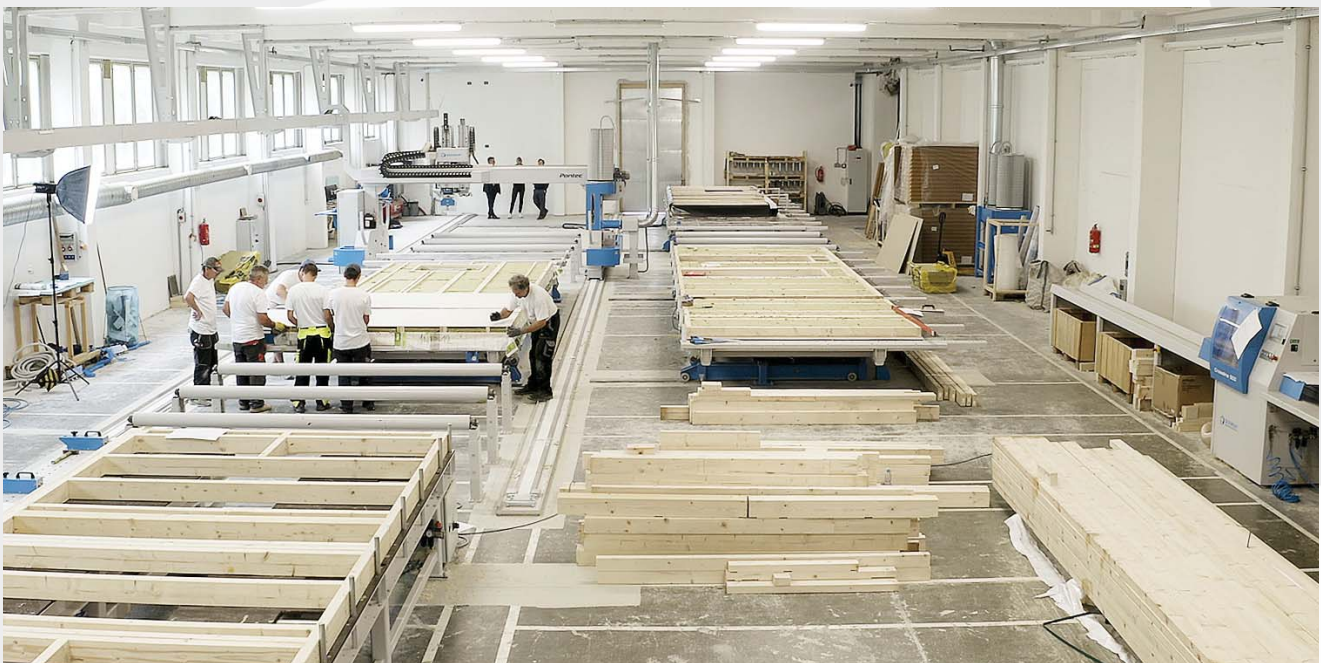
An integrated dust extraction unit



Integrated industrial PC Beckhoff with two large screen monitors; NCi control, TwinCAT 3



Production line with 4 assembly tables, Pontec CNC machine and automatic cross-cut saw Crossline 500M



Machine control

Project preparation before machining - PC office

- Loading work tasks in the form of a BTL file in the LIGNOCAM program environment

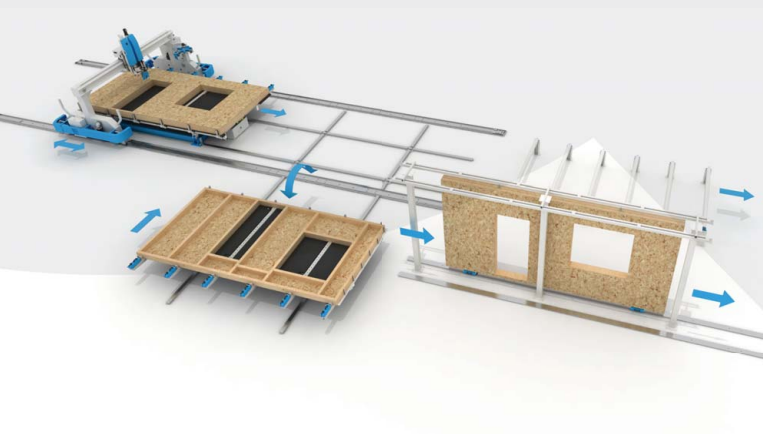


- Simulation of machine operation with the possibility of checking data before entering the machine
- Editing and modifying individual macro machining before entering the machine

Work on the PONTEC machine - integrated industrial PC Beckhoff with two large screen monitors; NCi control, TwinCAT 3.

- Import and check LIGNOCAM input files
- Editing and adjusting individual machining on the panel
- Start the machine duty cycle
- Checking the progress of work
- Diagnostics of processes and machine condition
- ON-LINE technical support from the manufacturer

PONTEC is also an excellent solution for smaller production lines with 2 moving tables or fixed assembly table with crane tilting panels.



Parameters according to manufactured panels

- Travel length - according to the project
- Panel width - standard 3500 mm, max 3800 mm
- Panel thickness - 50 - 400 mm

Work units

Milling unit

- Power S1 - 8/9.5 kW, HSK 63 F
- Liquid cooling
- Spindle speed 0 - 24,000 rpm
- 360 ° C-axis for aggregates
- Automatic toolchanger with 8 positions for tools and aggregates

Tools and aggregates

- Spiral tool \varnothing 16 mm, HSK 63F
- Saw unit \varnothing 250 mm, HSK 63F with integrated extraction cover
- Additional tools and aggregates as required

Stapler unit

BeA AUTOTEC 264; 284

- Staple length 25-80 mm; 75-160 mm
- Magazine capacity 2300 pcs; 550 pcs
- Stapling speed 9 pcs / sec; 3 pcs / sec

Stapler unit

PREBENA MODUL 11 - Q80 (Z80); WP130

- Staple lengths 225-80 mm; 75-130 mm
- Magazine capacity 2520 pcs; 600 pcs
- Stapling speed 9 pcs / sec; 4 pcs / sec

nailing tools and other stamping tools on request



SOUKUP, established in 1991 based in the Czech Republic, has always been in tune with its customers' requirements. The primary reason we started to build our own machines was that we were unable to find any machine on the market which could fully match the carpenter's way of thinking and doing things.

By taking a more in-depth look at our projects, you will see that there are many original approaches and solutions to various technical tasks all based on our extensive practical experience of producing woodworking machines.

We do not want our customers to simply be able to use the machines; more importantly, we want them to feel naturally involved as part of the overall process. We believe that the correct technological choices and subsequent implementation in conjunction with the needs of our customers are key factors in the success of their future production. We will be pleased to share our knowledge and experience with you.



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