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6-axis machining centre for beams and wall panels



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6-axis machining centre, optimal technological solution for wooden structural beams and modular wall elements. OIKOS with its highly innovative devices can meet any demand from the constantly evolving market.

HIGHEST FLEXIBILITY

Any machining operation on all faces without revolving the work pieces, thanks to the innovative structure with 6-axis architecture.

GREATER PRECISION

Quick and easy installation of beams and walls without any adjustment on site, the machining unit always ensures maximum precision.

EASE OF USE

Programming and use of the machine with the **Maestro Beam&Wall** software are simple and intuitive for everyone; designed and developed by Scm, it allows full integration with the most popular industry CAD/CAM software.

PRODUCTIVITY WITHOUT COMPROMISE

Sequential production of work pieces different from one another is extremely rapid, no setup required and rapid tool change.





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technological advantages



INNOVATIVE 6-AXIS ARCHITECTURE
with telescopic Y axis permits the maximum precision with reduced overall dimensions.



MOVEMENT AND CLAMPING SYSTEM

Clamps with motorized, self-centering closing movement, ensure optimal grip of work piece in any condition.

Cnc controlled horizontal and vertical pressers with self-centering closing movement and automatically adjusted to the section of the work piece, "guide" it in the machining area guaranteeing high accuracy.



NESTING TECHNOLOGY

Innovation in wall panel machining, thanks to the nesting function; **material optimization, time and cost reduction are the main production advantages.**



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handling systems



LOADING SYSTEM

The loading system allows to place a set of beams on the infeed buffer and to automatically manage the single beam loading quickly and accurately.

As soon as the beam is ready to be processed, the system can return to the initial position ready for the next beam.



UNLOADING SYSTEM

Placed on the right side of the machine, the system manages the unloading of the processed elements that can be accumulated on the outfeed buffer.



ergonomics



Fully enclosed machining area with a protective cabinet, which guarantees extreme safety for the operator during the processing phases.

The cabin is equipped with suction outlets, in order to collect dust and to keep the machining area always visible.

Electrical, electronic, lubrication and compressed air systems are positioned at the side of the cabin, easily visible and accessible for maintenance.

The control unit is located on the machine front, where there is also a large transparent window, offering excellent visibility throughout the machining area.



Chip and waste are removed by means of a wide belt under the machining area.

Thanks to the automatic management of the belt and the door located on the machine front, the operator can easily recover the short work pieces.

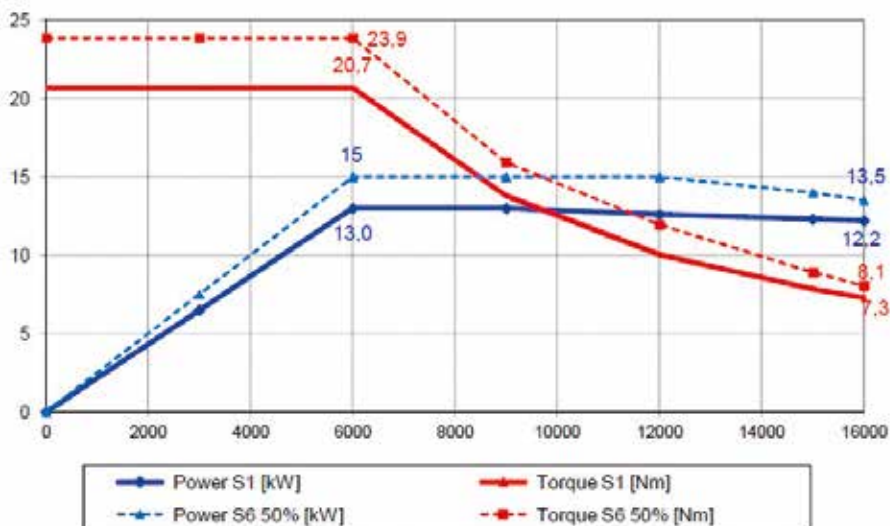
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machining head unit

Machining head unit and electrospindle are specially designed to perform all the operations required for the production of beams and wall panels with maximum speed and maximum finishing quality.



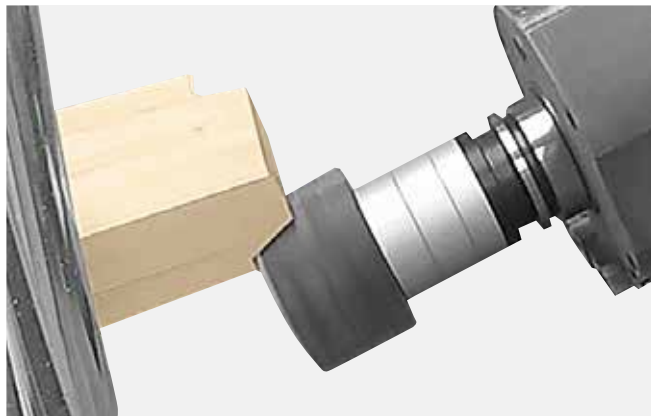
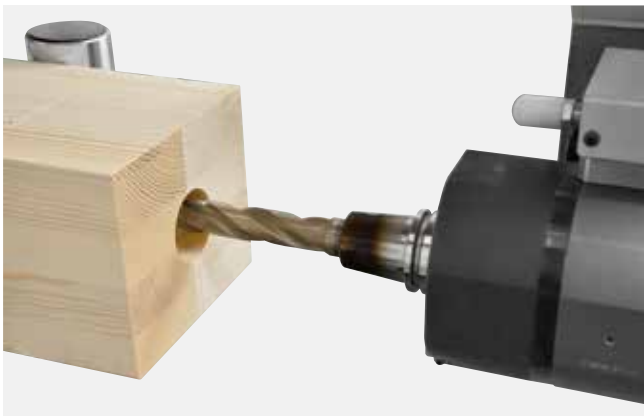
The electrospindle, designed and built by SCM, develops a power of **13 kW at 6000 rpm**, to be able to exploit power with tools of large dimensions and achieve a maximum rotation speed of **16000 rpm**. Excellent performance that make the machine ideal for **routing operations with heavy duty stock removal and profiling at high speed rotation**, ensuring precision and perfect finish quality.





Beams and modular wall elements with sections up to 1250x300 mm and machining operations necessary on all faces, are processed in a single setup without revolving or repositioning the work piece.

The particular geometry of the machining head unit, thanks to the sixth axis, allows to process even the lower face of the work piece: greater precision, greater productivity and no intervention by the operator.



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tool stores



Tool stores with **up to 18 positions** to always have on board all the tools necessary to complete the machining operations.

The upper position can accommodate a **600 mm diameter blade** while the lower position can house special groups such as the angular head with mortise chain.



Dedicated position for mortise chain or tools of weight up to 15 kg



Dedicated position for chainsaw or tools of weight up to 15 kg

angular heads



Mortise chain angular head dedicated to hardware slots, throughfeed or blind, of depth up to 310 mm. Equipped with stabilizer bar ensuring high accuracy.



Chainsaw angular head dedicated to precision cutting, in particular for applications on wall panels with nesting technology. The angular head is equipped with lubrication system with oil level indicator.

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special machining units



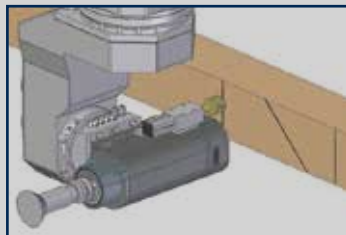
Pneumatic probe, placed on the machining head, allowing to check the correct work piece position before machining, to guarantee maximum precision.



Laser probe, placed on the machining head, which detects the exact position of the face to be processed ensuring high precision. The touch probe cycle is very quick, thanks to the laser high reading speed.



Marking operations are possible on the 6 work piece faces, thanks to the marker aggregate placed on the machining head. The aggregate allows to quickly execute lines or scripts without the need to change the tool.



options

Simple identification of every single work piece, thanks to the “label printing” straight after the work piece processing.



Comfortable removable supports facilitate loading on the chains of the work pieces picked from the pallet.

Greater cleanliness thanks to an inclined rear belt connected directly to a container for collecting chip and waste.

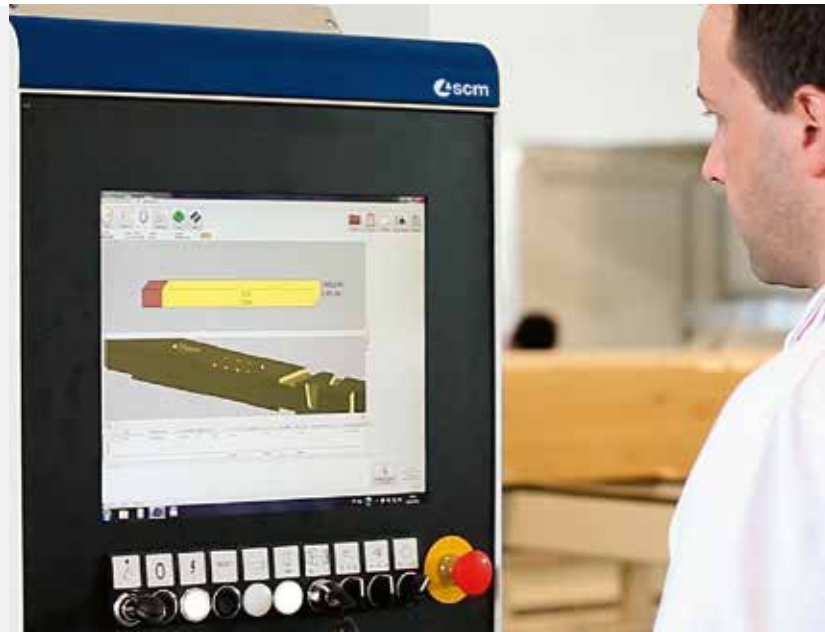


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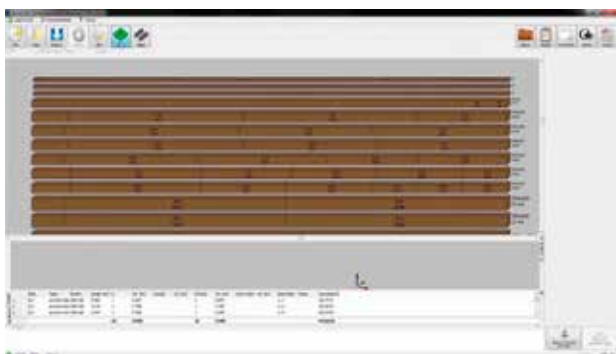
software



Maestro Beam&Wall is the software developed by SCM allowing the interface with the industry's best design CADs present on the market. With a few clicks, it is possible to switch from importing BTL files to running the work piece in the machine. Maestro Beam&Wall gets all the information from the CAD that designed the structure and automatically creates every single program. In addition, a number of simple functions are available to the operator to facilitate customization of the elements to be produced.

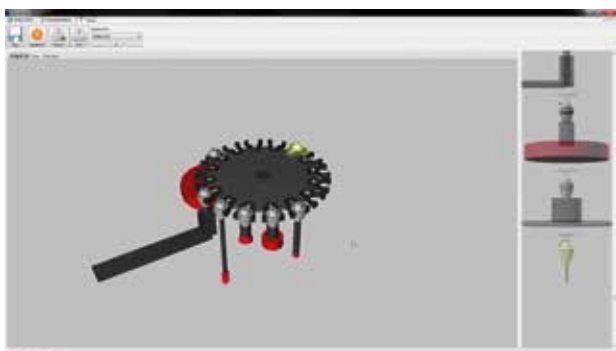


Each project can be imported and processed in a few steps, with the ability to modify any processing parameters, add or delete operations and elements. Possibility of changing the machining strategies to obtain the best result, in terms of precision and end product finish quality.

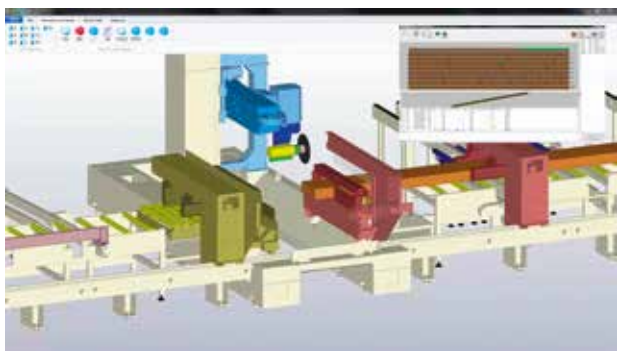


During programming, it is possible to optimize the elements to produce, in order to sort the rough work pieces by minimizing the scrap.

The same operator interface is present on the machine control to manage: program running, production reports, label printing, and so on.

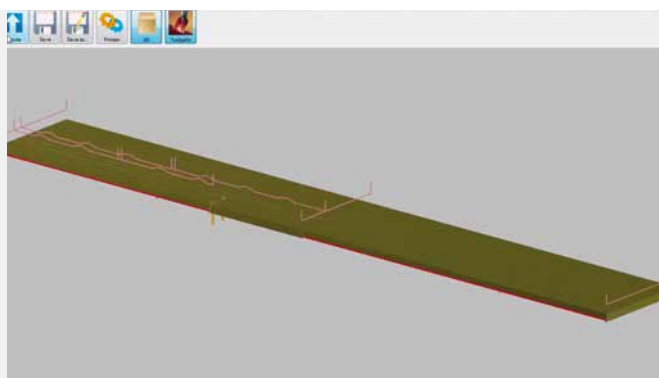


In a simple and intuitive way, the operator interface also manages all the tools available, with the ability to create new tools (shape and size) and manage different sets according to the project to be worked on.



Maestro Beam&Wall includes **simulation software**, which makes it possible to test the programs in advance on PC and visualize the operations that will be performed during production, with obvious benefits for the customer:

- to eliminate collision risks, errors and downtime
- to calculate time and cost production, resulting in easy determination of the yield of acquired orders.



Software function dedicated to **PROJECTS ON MODULAR PANELS** manufactured with **NESTING technology**.

Simple import and processing of projects made with modular elements obtained from rough panels, optimizing the cutting of elements within the same panel.



Flexibility both in machining and in programming with the possibility to freely create any geometry.



applications

ROOFS - CEILINGS



CLT, X-LAM



STRUCTURAL BEAMS, CONSTRUCTION TIMBER



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applications

BLOCKHOUSE



INSULATING PANELS



The technical data can vary according to the requested machine composition. In this catalogue, machines are shown with options. The company reserves the right to modify technical specifications without prior notice; the modifications do not influence the safety foreseen by the CE Norms.

Maximum recorded noise levels based on functioning parameters established by EN 848-3:2012.
Acoustic pressure while working 78,4 dB(A) (measured according to EN ISO 11202:2010, K variance = 4dB)
Acoustic power while working 100,6 dB(A) (measured according to EN ISO 3746:2010, K variance = 4 dB).
Despite the existence of a correlation between "conventional" noise emission values mentioned above and average personal exposure of the operators during the 8 hours, these also depend on the specific functioning conditions, length of exposure, acoustics characteristics of the working environment and by the presence of additional sources of noise, that is the number of machines and adjacent processes.

THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND

Over 65 years of success gives SCM the centre stage in woodworking technology. This heritage results from bringing together the best know-how in machining and systems for wood-based manufacturing. SCM is present all over the world, brought to you by the widest distribution network in the industry.

65 years history

3 main production sites in Italy

300.000 square metres of production space

17.000 machines manufactured per year

90% export

20 foreign branches

350 agents and dealers

500 support technicians

500 registered patents

In SCM's DNA also strength and solidity of a great Group. The SCM Group is a world leader, manufacturing industrial equipment and components for machining the widest range of materials.

SCM GROUP, A HIGHLY SKILLED TEAM EXPERT IN INDUSTRIAL MACHINES AND COMPONENTS

INDUSTRIAL MACHINERY

Stand-alone machines, integrated systems and services dedicated to processing a wide range of materials.



WOODWORKING TECHNOLOGIES



TECHNOLOGIES FOR PROCESSING
COMPOSITE MATERIALS, ALUMINIUM,
PLASTIC, GLASS, STONE, METAL

INDUSTRIAL COMPONENTS

Technological components for the Group's machines and systems, for those of third-parties and the machinery industry.

HITECO

SPINDLES AND
TECHNOLOGICAL COMPONENTS

Les

ELECTRIC PANELS

steelmec

METALWORK

scmfonderie

CAST IRON



is more



SCM GROUP SPA

via Casale 450 - 47826 Villa Verucchio, Rimini - Italy
tel. +39 0541 674111 - fax +39 0541 674274
housing@scmgroup.com
www.scmwood.com



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