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CNC machining cell for doors and windows



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Integrated machining cell for the flexible manufacturing of windows and doors. Suitable to work multiple shifts per day, it can perform batch or one-off production. It is possible to carry out all of the essential operations of cutting, tenoning, drilling-routing, profiling regardless of shape, construction concept, joint type, section type of the frame element.

AUTOMATIC WORK CYCLE

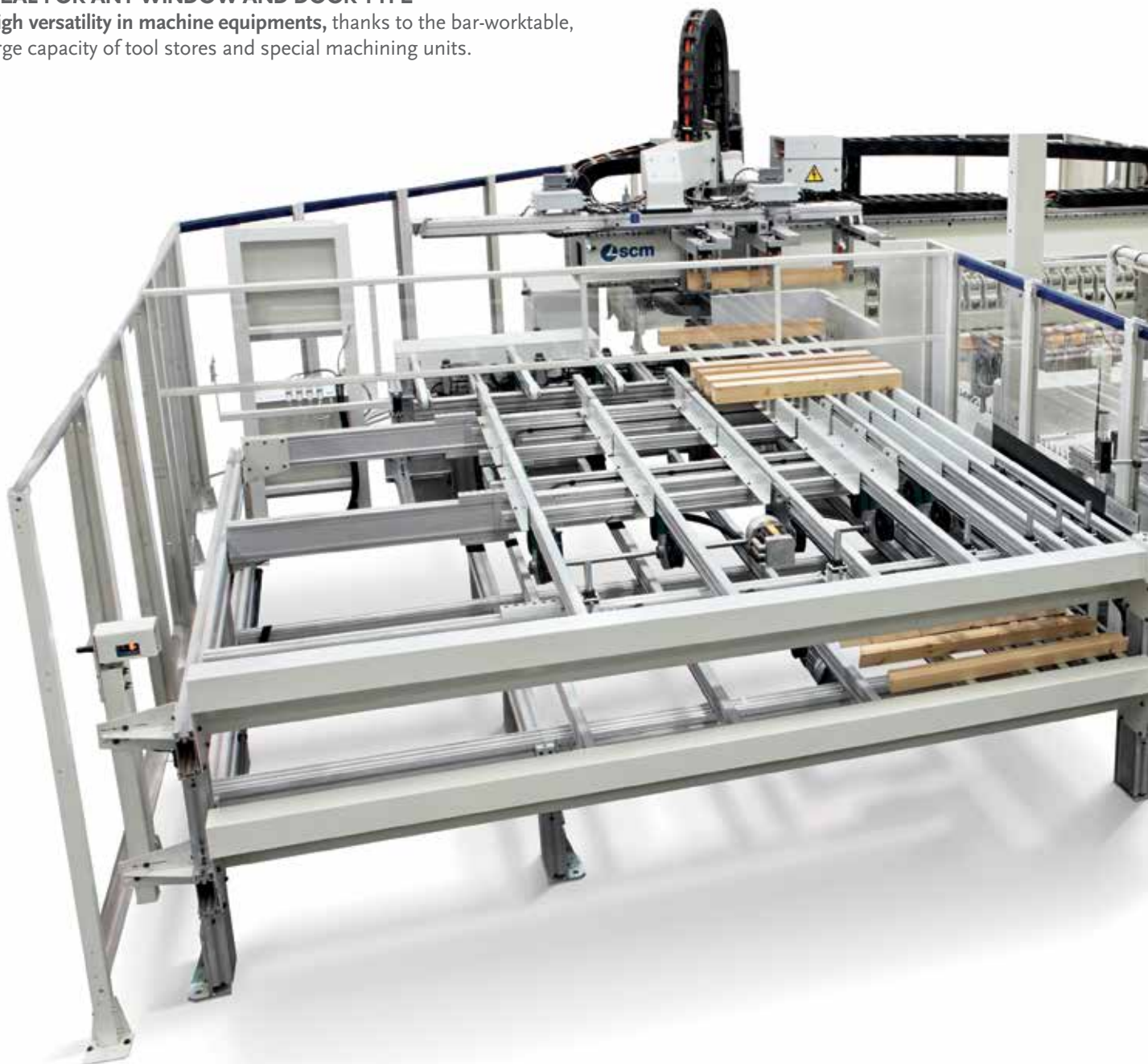
The **operator's presence is not continuously required**, thanks to the work piece loading/unloading station.

GREAT FINISH QUALITY

Extreme processing precision thanks to the Combiflex worktable, allowing a **perfect work piece machining**.

IDEAL FOR ANY WINDOW AND DOOR TYPE

High versatility in machine equipments, thanks to the bar-worktable, large capacity of tool stores and special machining units.





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technological advantages



The **Combiflex worktable** equipped with many clamps with variable centre distance, ensures the work piece is correctly fixed, according to the length and shape.



Fully automatic work cycle and loading/unloading buffer for maximum productivity with a non continuously presence of the operator.



Great variation in terms of tools number and diameter, thanks to the HSK electrospindles and the 48-station tool stores.

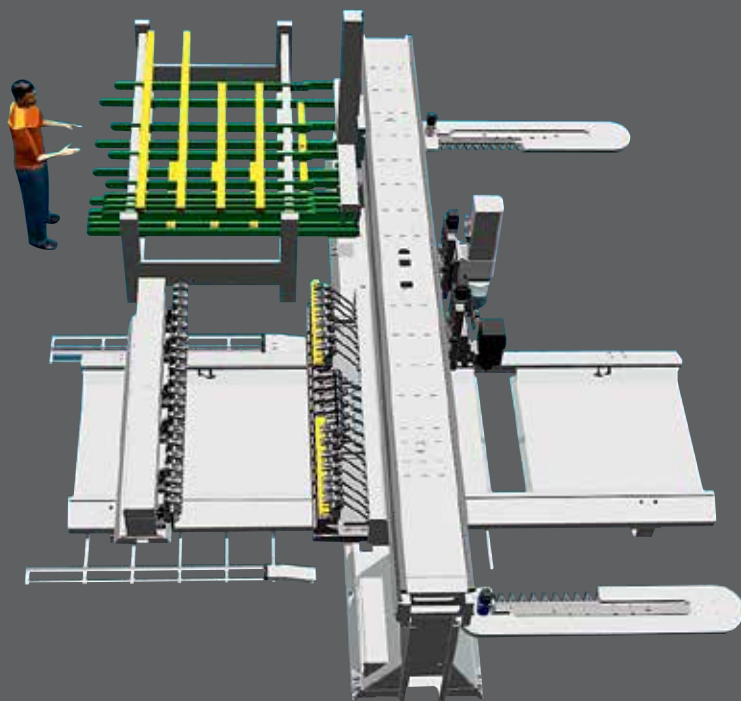


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easy to use, independent, precise

Easy to use

The fully automated cycle allows control of workpiece dimensions and of all machining operations to be performed, including loading/unloading.



Independent

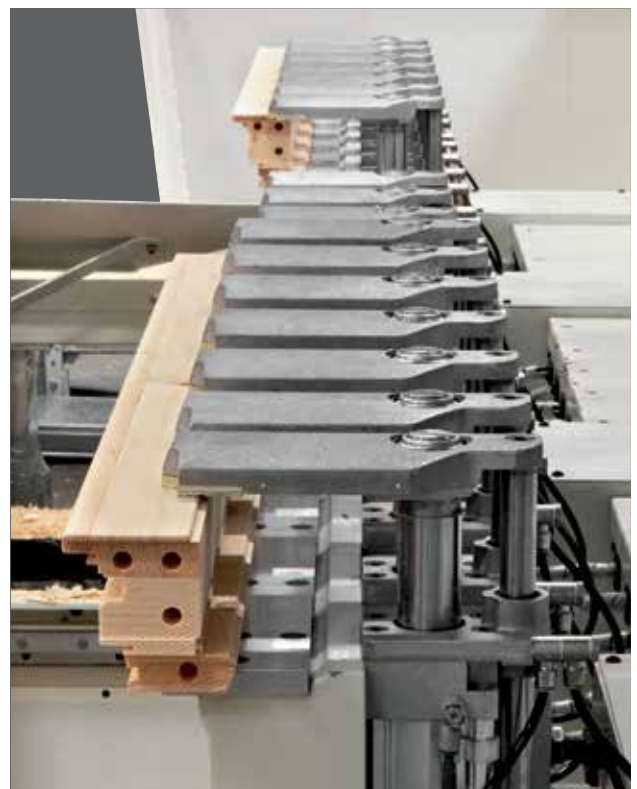
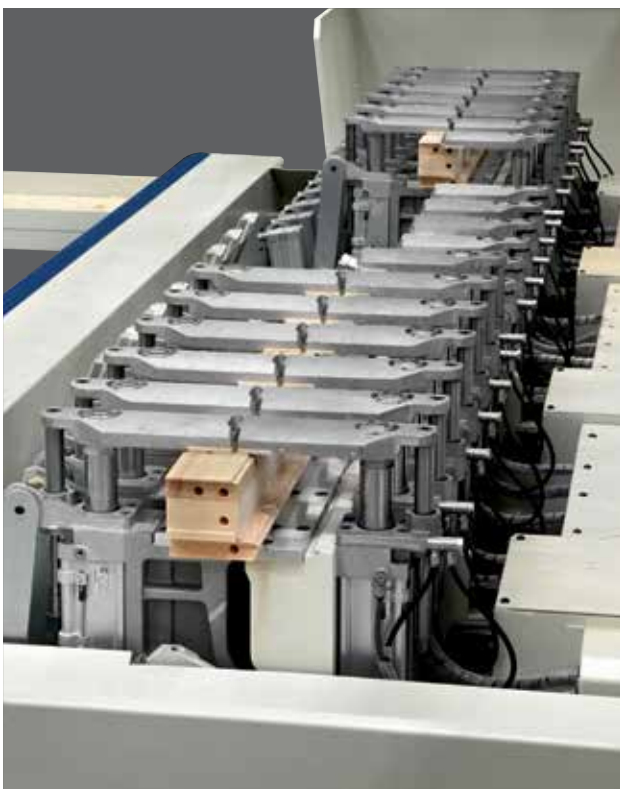
It is possible to load and unload up to 20 work pieces continuously without intervention by the operator.





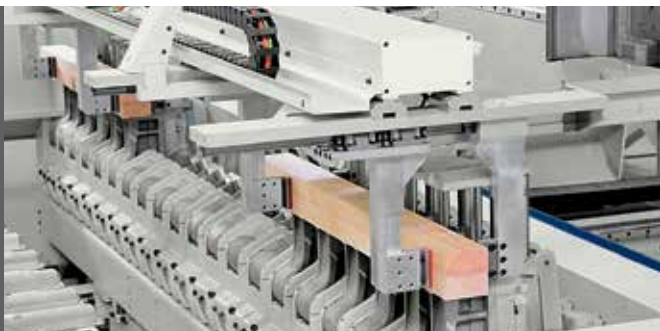
Precise

The **Combiflex worktable** ensures the work piece is correctly clamped independently from the type of profile and section to be executed. For particular profiles it is possible, in fact, to re-clamp the work piece in different positions. The direct exchange between collets avoids errors of parallelism and straightness. According to the machining cell configuration and the work piece dimensions, the Combiflex worktable makes it possible for the processing of 2 to 6 work pieces at the same time.



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productive, fast, complete

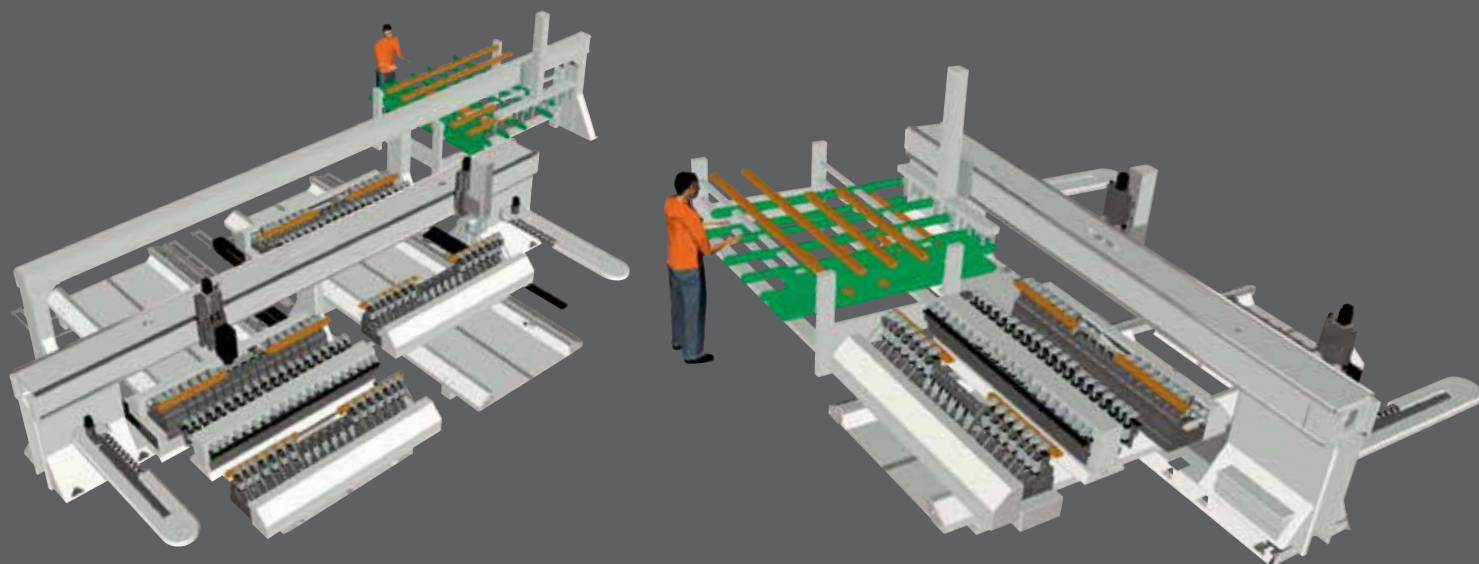


Productive

During the regular work cycle, the machining cell allows loading/unloading of 2 work pieces at the same time.

Fast

Possibility to perform **tenoning of both work piece ends** simultaneously, using together the machining units.

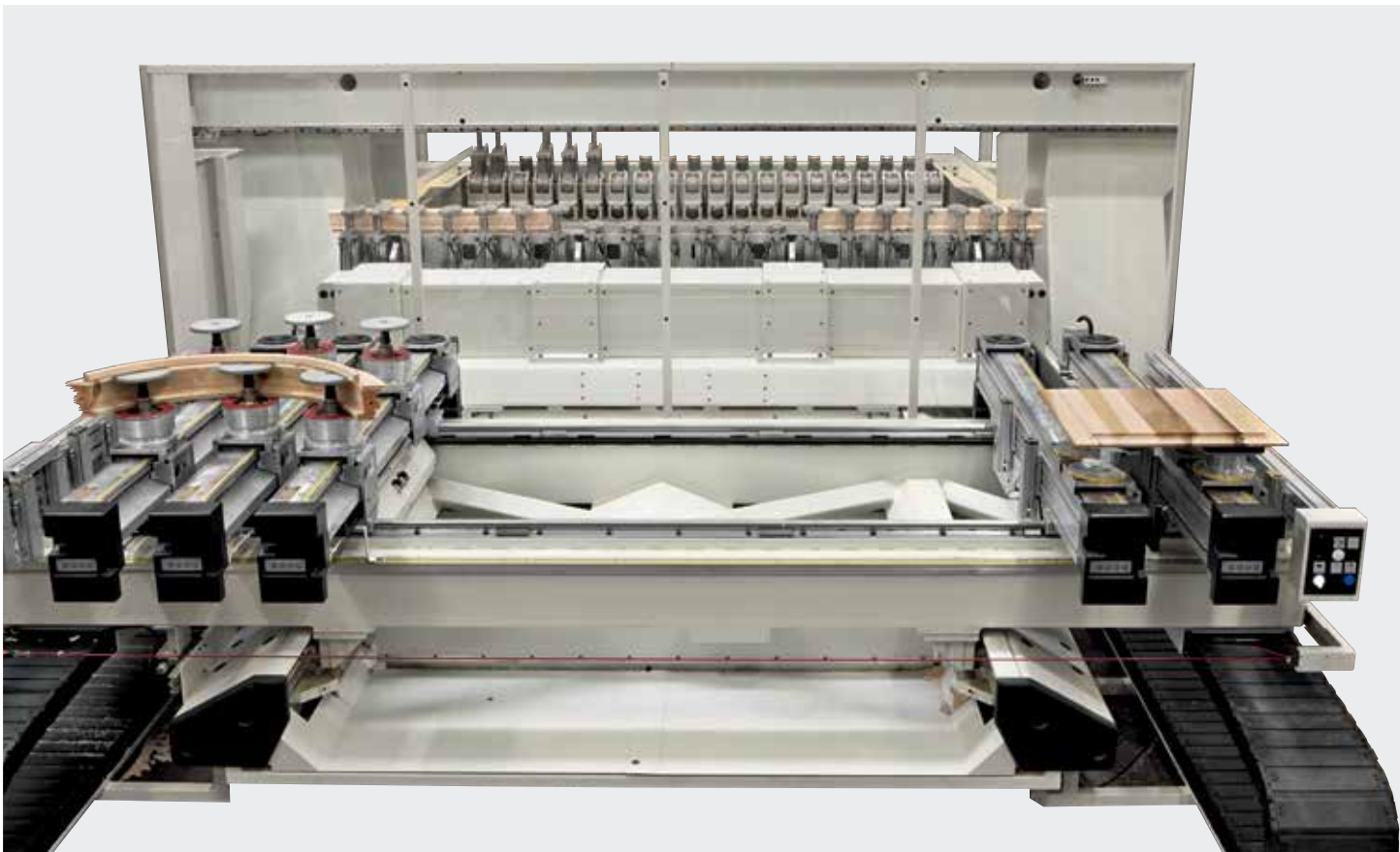


Combiflex worktable is available in two configurations: Mono and Dual.



Complete

Thanks to the possibility of integrating the **FX bar worktable**, it is possible to make arches, carry out storm proofing on door panels and frames, solid shutters and louver shutters, to square wooden door panels and panels in general, with the operator only required to load/unload the work pieces.



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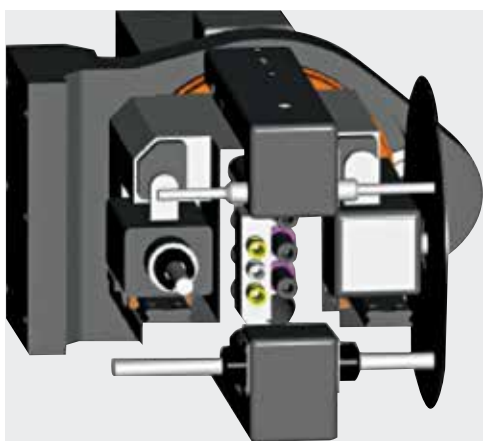
technology and high performance without compromise



3- and 5-Axis electrospindles with HSK 63E tool chuck with power available at low revolutions, ideal for tools with large dimensions.



Conveyor placed on each electrospindle. It is automatically directed towards shavings ejection and adjusted with 6 vertical working position.

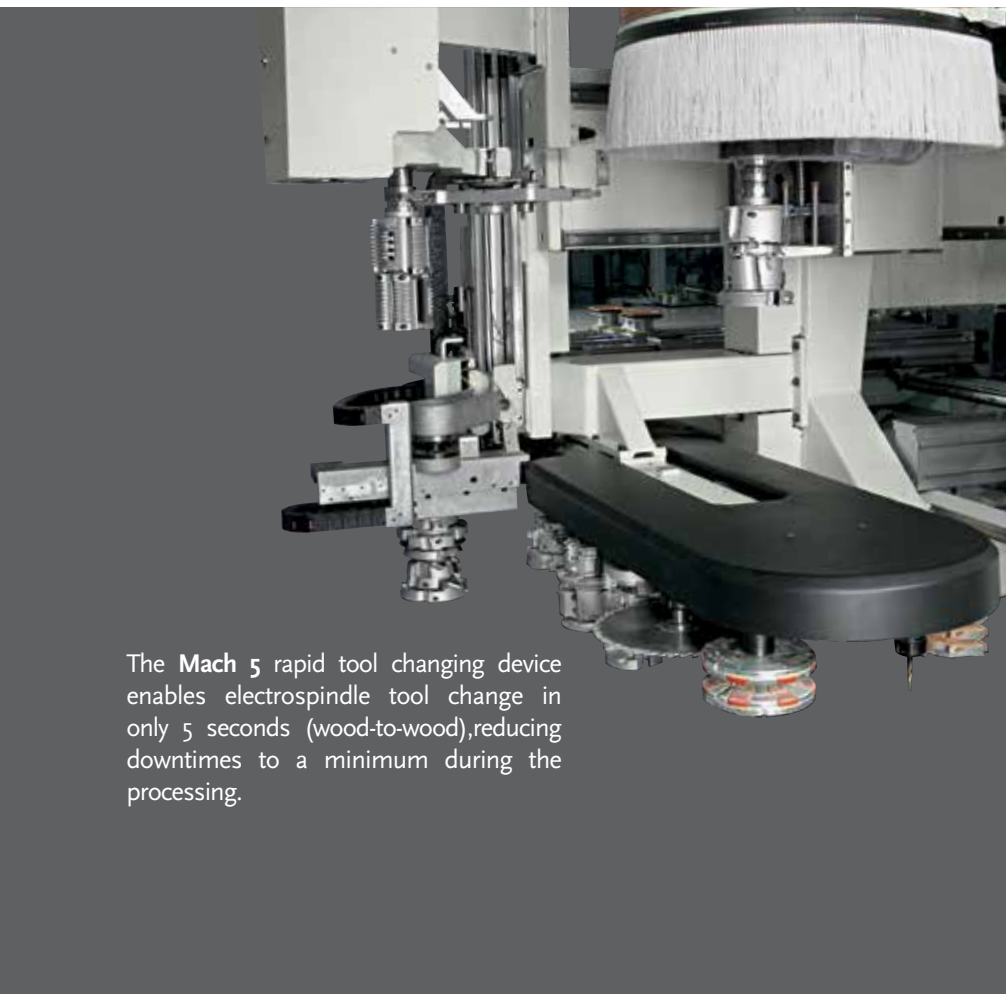
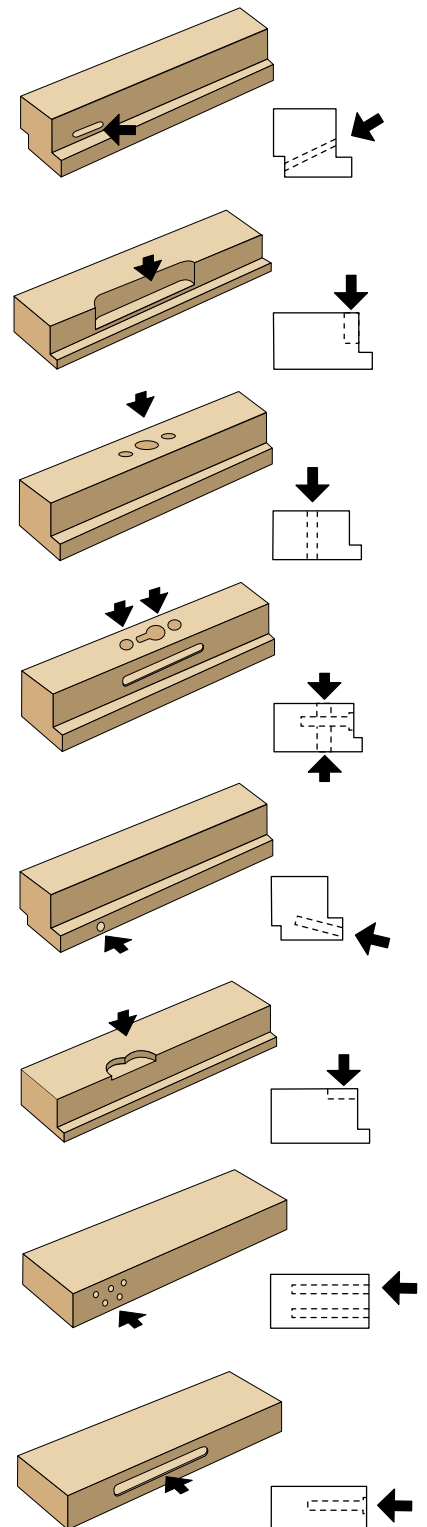


The **BRC** drilling, routing and cutting off machining head ensures high flexibility and productivity without using commercially available driven heads.





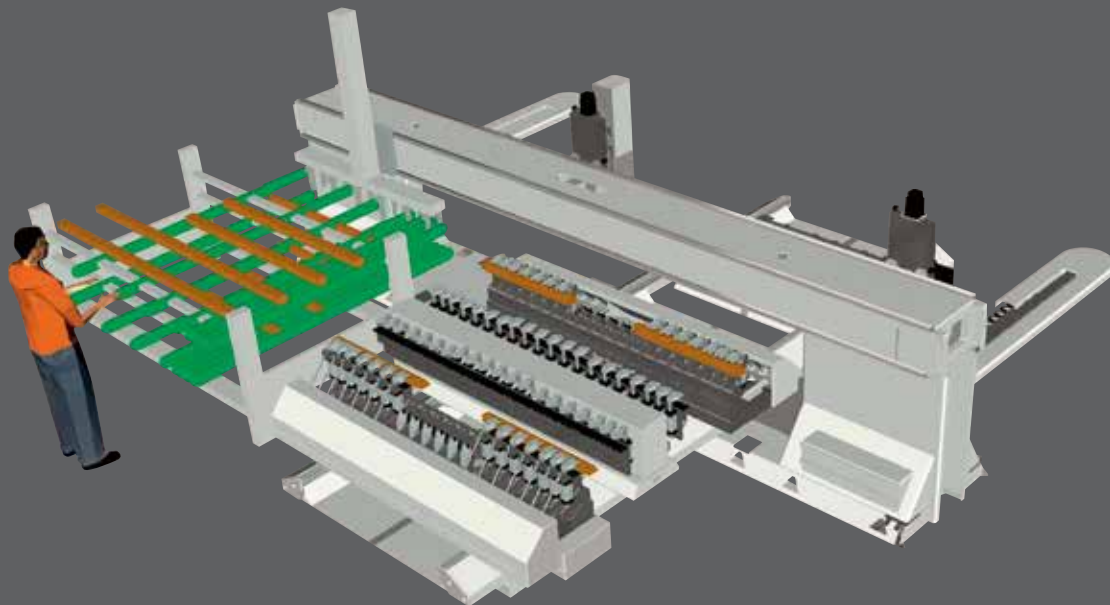
The machine can be fitted with toolholder-stores of up to 48 stations for each machining unit.



The **Mach 5** rapid tool changing device enables electrospindle tool change in only 5 seconds (wood-to-wood), reducing downtimes to a minimum during the processing.

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leading mechanical structures and electronics



Structure

Monobloc structure designed with the assistance of solid modelling systems (mechanical joints avoided). All mechanical machining is performed on CNC machining centres with a single positioning operation to guarantee precise processing.



Drives

The positioning of all working units is through rack or female screw with recirculating balls, according to the movement of weight, and slides along prismatic guideways. Brushless Motion Control with digital drives ensuring **high precision in reduced production time**.

Easy and intuitive software



Operator interface

Maestro makes easy and intuitive the programming. It is possible to:

- Manage all the machining processes, worktable included
- Create production mixes
- Generate programs using an Editor with graphical icons
- Signal the presence of wrong pieces
- Keep in memory all tools data
- Guide the operator during the machining with graphic support
- Visualize the diagnostic and data of production made and to make.

Simulator

The **Maestro Pro View** simulation software allows an accurate simulation of the programs to be run in the machine for:

- collisions check
- cycle time and productivity check
- machining operation type and position check



Sav€nergy, high performance and energy saving



Sav€nergy

- Optimum feed speed depending on the material and tool
- Recovery of energy produced during electrospindle braking
- Optimisation of compressed air consumption
- Optimisation of vacuum pump speed of rotation, depending on the vacuum required
- Electrospindle heat exchanger management, depending on the operating temperature
- Automatic switch to stand-by for motors not being used for machining, manual or NC
- Opening of the exhaust outlets related to the machining in progress

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technical features

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technical data

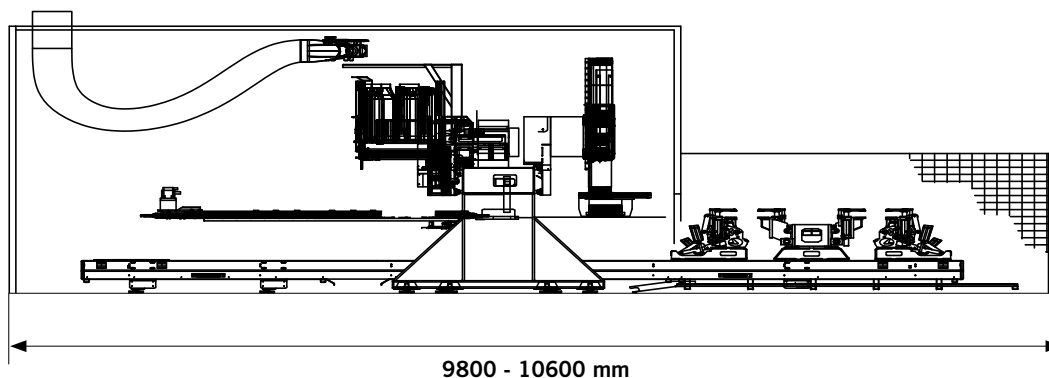
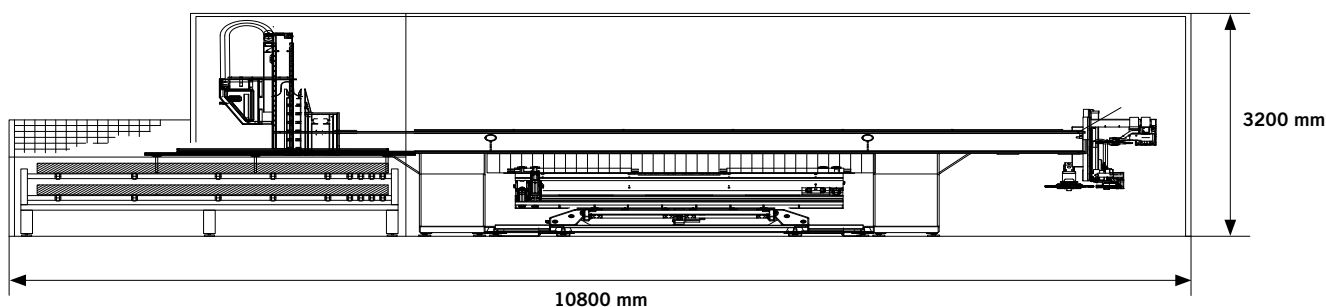
CNC MACHINING CELL FOR DOORS AND WINDOWS

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Min/max working length	mm	210 ÷ 3200
Min/max work piece width	mm	30 ÷ 220
Min/max work piece thickness	mm	20 ÷ 100 (opt 160)
Real distance under worktable	mm	110
Tenoning height from worktable	mm	1020

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overall dimensions



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 - 3E.

Acoustic pressure while working (routing) 80 dB(A) (measured according to EN ISO 11202:1995, K variance = 4dB)

Acoustic power while working (routing) 97 dB(A) (measured according to EN ISO 3746:1995, 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.



SPINDLES AND
TECHNOLOGICAL COMPONENTS



ELECTRIC PANELS



METALWORK



CAST IRON



is more



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