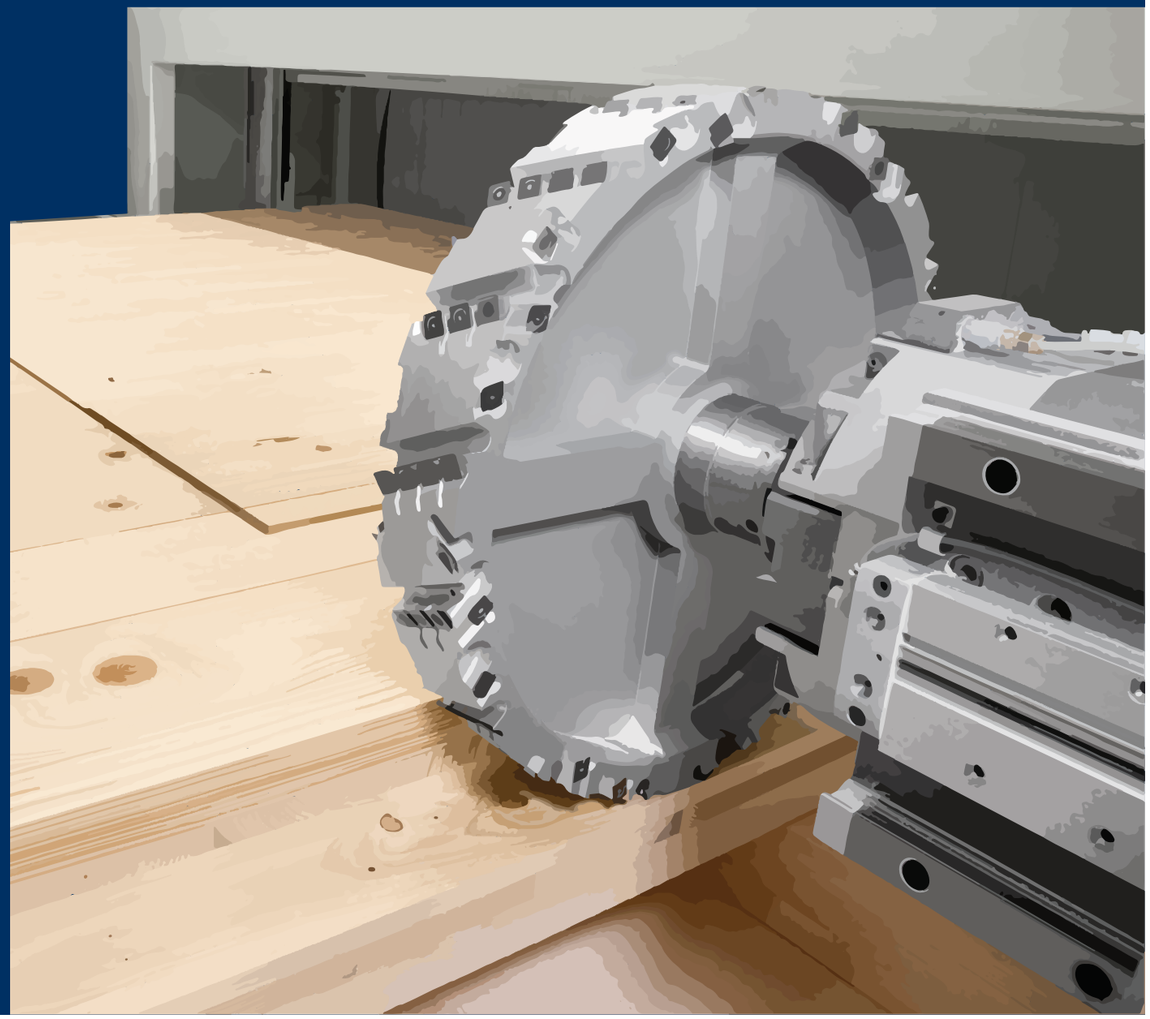
CNC - Machining centres for timber construction

area range

5-axis machining centres for walls, floors and curved beams



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woodworking technology

OUR TECHNOLOGY TO BUILD TOGETHER

A GREENER PLANET

area range

5-axis machining centres for walls, floors and curved beams

area

area x

area xl

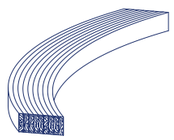
WATCH THE VIDEOS

A COMPLETE RANGE OF GANTRY MACHINING CENTRES FOR STRUCTURAL ELEMENTS

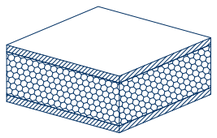
area

APPLICATIONS

CLT panels for the construction of walls and floors of residential and multi-storey buildings.



Curved glulam beams used in large public structures such as sports facilities and bridges.



Insulating composite panels used for the construction of roofs and walls.

MAIN TECHNICAL FEATURES

area range

5-axis machining centres for walls, floors and curved beams

The machining head unit of **Area** has been specially designed to perform, at maximum speed and with perfect quality, all necessary operations to produce construction elements even in the case of heavy duty stock removal.

The **electrospindle, designed and built by SCM, develops a power of 30 kW at 6.000 rpm,** but it can achieve a maximum rotation speed of 13.000 rpm.

High safety level, thanks to the full enclosed machining area and the innovative system allowing **free access to the worktable even with the machine on duty.**

The machine perimeter is completely controlled by photocell barriers slowing down the gantry movement when the operator enters the machining area. Processing is not interrupted and the operator can move safely around the worktable.

The **tool store with up to 12 positions** has been designed to have on board all necessary tools to complete the whole work cycle. Dedicated positions for **sawblade aggregate of up to 1.020 mm diameter, chainsaw and planning aggregate.**

On/off movement of the rack in the X direction keeps the same tool store always out of the way when the tool change operation is not required.

area

The machine design is based on a modular system allowing to customize the size of the worktable **up to 50 m length,** to meet all production needs.

Heavy duty reference system on the worktable, to properly accommodate panels with large dimensions. After the positioning, the reference stops are automatically lowering, leaving all the work piece sides free.

The positioning of bulky and heavy elements might be awkward and difficult; **the laser system simplifies this operation projecting the tool paths on the work piece with precision,** and allowing the operator to centre the program on the piece already loaded on the machine.
Information is forwarded automatically to the CNC that modifies the part program, according to the new work piece position.

Even small work pieces can be blocked on the worktable thanks to the suction cup system.

The suction cups with manual positioning and automatic activation are easily positioned across the working area and connected to the vacuum ports arranged on the machine with quick plug-in connectors on the perimeter of the worktable.

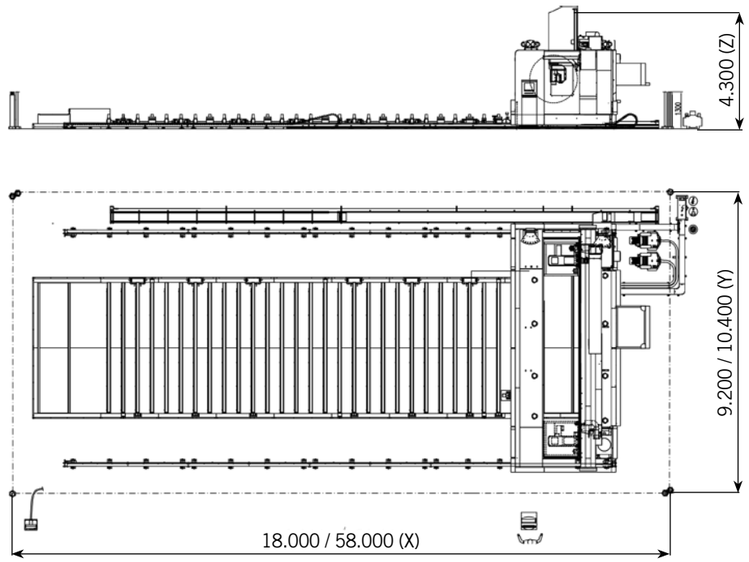
TECHNICAL DATA

area range

5-axis machining centres for walls, floors and curved beams

area		
WORK PIECE DIMENSIONS		
Length min/max.	mm	600 / 50.000
Width	mm	up to 3.200 / 4.500
Thickness min/max.	mm	20 / 360
MACHINING HEAD UNIT		
Power max. (S1) at 6.000 rpm	kW	30
Rotation speed max.	rpm	13.000
Torque max.	Nm	47,7
Tool attachment	-	HSK 80 F
TOOL STORES		
TR12	N° positions	12
Sawblade diameter max.	mm	1.020
WORKTABLE		
Type	-	Fixed
Height from the ground	mm	500
PRODUCTIVITY		
Estimated average productivity (fixed worktable, single field)	m^3/year	10.000

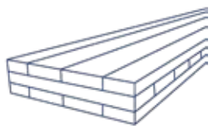
LAYOUT



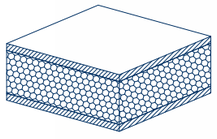
WORKING AREA		
Worktable length in X	mm	from 10.000 to 50.000
Worktable width in Y	mm	3.200 / 4.500

area X

APPLICATIONS



CLT panels for the construction of walls and floors of residential and multi-storey buildings.



Insulating composite panels used for the construction of roofs and walls.

MAIN TECHNICAL FEATURES

area range

5-axis machining centres for walls, floors and curved beams

Area X is equipped with a machining head unit with excellent performance in terms of torque and power.

The PRISMA TLP 5-axis machining head unit develops a **power of 30 kW at 6.000 rpm and a torque of 47.7 Nm (S1).** This performance allows **both routing with heavy duty stock removal and extremely precise high-speed profiling** with a perfect finish.

The **15-position tool store** was designed to offer the possibility of equipping the machine with more tools than the **Area** model.

On/off movement of the rack in the X direction keeps the same tool store always out of the way when the tool change operation is not required.

The entire **Area range** is characterised by its **high degree of safety without compromising productivity.**

Thanks to the **Pro-Speed technology,** access to the working area is possible without any interruption.

In the event of contact with the cabin, sensitive blue bumpers positioned at both the front and rear side immediately stop all operations to safeguard the operator's safety.

area x

The machine is **available in 5 standard sizes and various worktable configurations,** making the machining centre suitable for all requirements.

The high configurability is possible thanks to the combination of fixed or motorized worktables equippable with automatic cleaning systems.

It is possible to integrate the machining centre into high productivity automatic lines for the processing of even large CLT panels, thanks to the **rich equipment of the worktable:** motorised rollers useful for the automatic transport of the panel in longitudinal direction and motorised chains necessary for the **positioning of the element in fully automatic mode.**

If equipped with fixed worktable, Area X is able to work in pendulum mode, which results in increased productivity compared to the single-field solution.

The cleaning systems ensure automatic removal of shavings from under the worktable and on its sides.

"Redler" type cleaning system, positioned under the worktable, is composed of a series of transverse scrapers moving in a longitudinal direction; this device enables the automatic removal of shavings falling by gravity during machining.

The belt cleaning system, positioned on the sides of the worktable, is equipped with a continuous movement of the conveyor belts allowing the automatic evacuation of shavings and small scraps.

TECHNICAL DATA

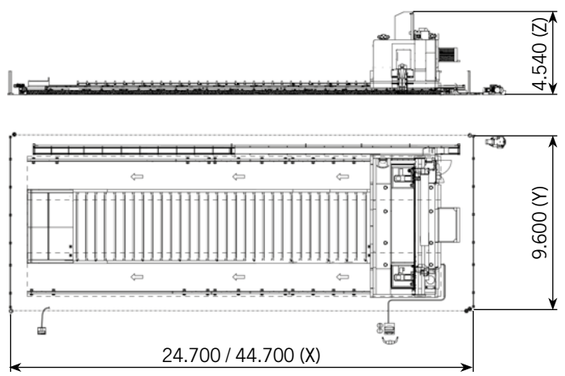
area range

5-axis machining centres for walls, floors and curved beams

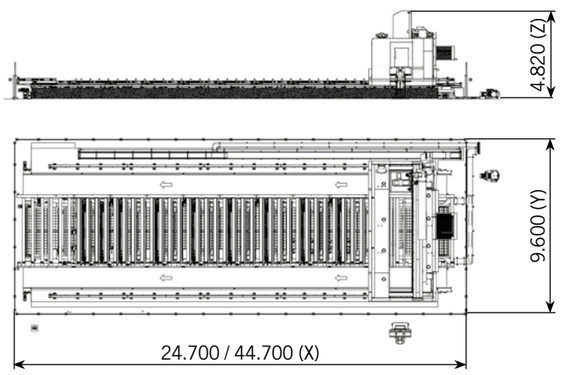
area x		
WORK PIECE DIMENSIONS		
Length min/max.	mm	1.100 - 36.000
Width min/max.	mm	500 - 3.600
Thickness min/max.	mm	20 - 360
MACHINING HEAD UNIT		
Power max. (S1) at 6.000 rpm	kW	30
Rotation speed max.	rpm	12.000
Torque max.	Nm	47,7
Tool attachment	-	HSK 80 F
TOOL STORES		
TR15	N° positions	15
Sawblade diameter max.	mm	1.020
WORKTABLE		
Type	-	Fixed - motorized
Height from the ground	mm	740 – 1.100
PRODUCTIVITY		
Estimated average productivity (fixed worktable, single field)	m^3/year	10.000
Estimated average productivity (motorized worktable, single field)	m^3/year	12.000

LAYOUT

FIXED WORKTABLE



MOTORIZED WORKTABLE



WORKING AREA				
BASE 16.000 x 3.600 mm	BASE 20.000 x 3.600mm	BASE 24.000 x 3.600 mm	BASE 32.000 x 3.600 mm	BASE 36.000 x 3.600 mm

area xl

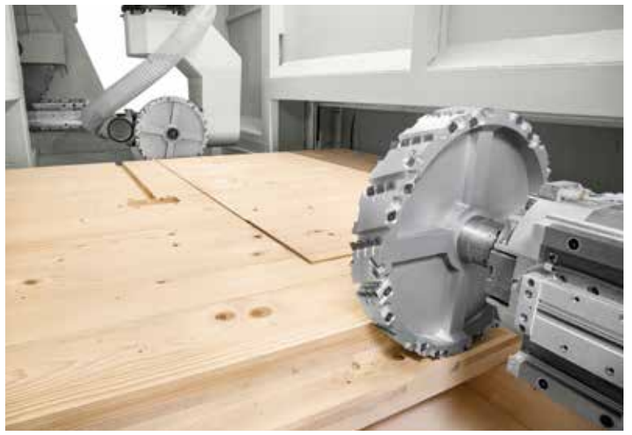
APPLICATIONS

CLT panels for the construction of walls and floors of residential and multi-storey buildings.

MAIN TECHNICAL FEATURES

area range

5-axis machining centres for walls, floors and curved beams



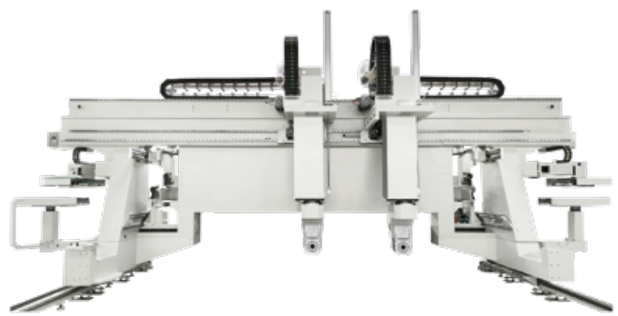
Area XL can fit **up to two electrospindles releasing 63 kW power at 5.000 rpm and 200 Nm torque,** which is extremely important in the processing of CLT panels.

The **composition with double machining head unit** allows to simultaneously execute particular types of operations, increasing the productivity.

Up to 6 tool stores with a total of 60 tools can be equipped.

Assembled on the sides of the gantry structure, the **4 circular tool stores** are dedicated to accommodate all the tools required for a complete work piece processing, including very **heavy cutters up to 520 mm diameter.**

The additional 2 tool stores can accommodate 4 sawblades in total. To cut elements up to 400 mm thick, it is possible to use a **sawblade aggregate of 1.150 mm diameter equipped with a dedicated extraction hood.** Besides, the machine can be equipped with a sawblade of 800 mm diameter for processing smaller thicknesses.



The high-rigidity structure of Area XL has been designed to guarantee complete absorption of the mechanical stresses resulting from machining operations.

The guide system ensures a correct alignment of the structure. Even possible misalignments, due to the movement of the flooring are automatically compensated through the compensation system for the “X” axis.

In addition to the ‘redler’ and ‘belt’ cleaning systems, **Area XL is equipped with an extraction hood, which collects shavings remaining on the surface of the processed element;** the same system can be used also to clean the worktable wooden bars.

On the highly configurable worktable, **handling, positioning and locking of up to 12.700 kg heavy panels** are possible fully automatically.

To facilitate the positioning of bulky panels, the installation of the laser system is recommended.

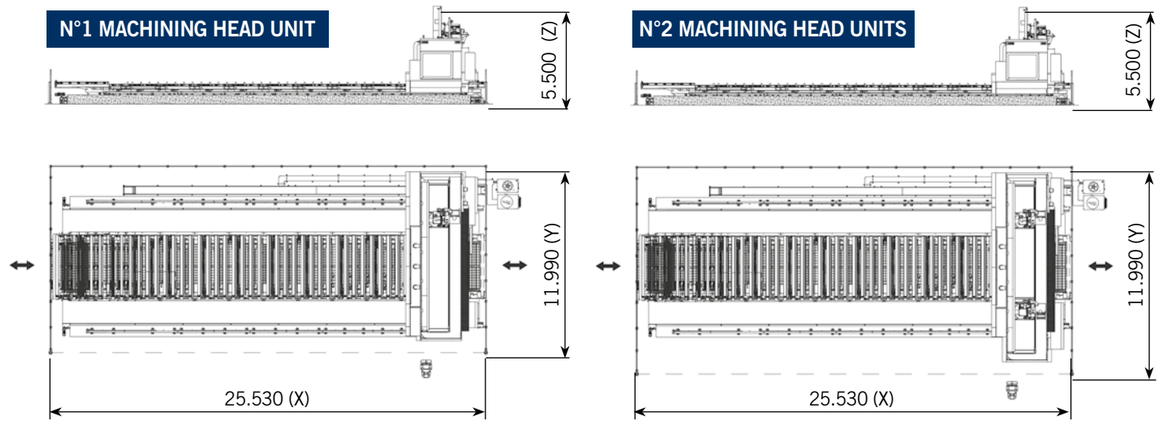
It is possible to integrate the machining centre into highly productive automatic lines, thanks to the rich equipment of the worktable with motorised rollers and chains.

The machine can be equipped with the system for deep drilling up to 1.800 mm on both sides of the work piece, thus being able to perform through holes on pieces up to a maximum width of 3.600 mm.

TECHNICAL DATA

area xl		
WORK PIECE DIMENSIONS		
Length min/max.	mm	2.100 / 16.000
Width max.	mm	3.600
Thickness min/max.	mm	20 / 400
MACHINING HEAD UNIT		
Power max. (S1) at 6.000 rpm	kW	63
Rotation speed max.	rpm	12.000
Torque max.	Nm	200
Tool attachment	-	HSK 100 A
TOOL STORES		
Available tool stores	N° tot.	6
Available tools	N° tot.	60
Sawblades diameter	mm	1.150 / 800
WORKTABLE		
Type	-	Fixed - motorized
Height from the ground	mm	740 / 1.100
PRODUCTIVITY		
Estimated average productivity n°1 Machining head unit	m^3/year	15.000
Estimated average productivity n°2 Machining head units	m^3/year	20.000

LAYOUT



WORKING AREA		
Worktable length in X	mm	16.000*
Worktable width in Y	mm	3.600

** Worktables with different lengths can be supplied on request*

EYE-M PRO OPERATOR CONSOLE

Machine control is at everyone's reach thanks to touch screen control panel, with an intuitive and powerful operator interface.

Always at your service.
The new eye-M PRO console allows connection via internet with the SCM Service. Our engineers can so access remotely to all machine levels to perform diagnostics, solve problems or update the machine logic in real time.

Full control over the process.
The video surveillance system allows the operator to monitor in real time the machine status through a display positioned close to the eye-M PRO console.

Use of 4 high-resolution cameras for the control of cutting operations, loading of the raw panel and unloading of the processed element.
The system also includes a "video recorder" function.

area range

5-axis machining centres for walls, floors and curved beams

Maestro beam&wall

Maestro beam&wall is the software entirely developed by SCM and specific for the CNC machining centres for timber construction, allowing to interface with the best design CADs present on the market.

OPEN AND INTEGRATED | **PROGRAMMING FREEDOM** | **FAST WORKFLOW**

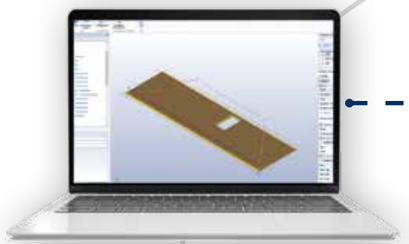
SOFTWARE

.btl file

PROGRAMMING WHEREVER YOU WANT
With Maestro beam&wall, it is possible to program either from the PC in the office or directly on the machine through the "eye-M PRO" operator console, with the possibility of satisfying every business organisation and leaving freedom of choice to the customer.

OFFICE | MACHINE

PROGRAMMING ENVIRONMENT



Maestro beam&wall is able to interpret exported projects in nesting mode through the use of outlines and to manage machining operations.

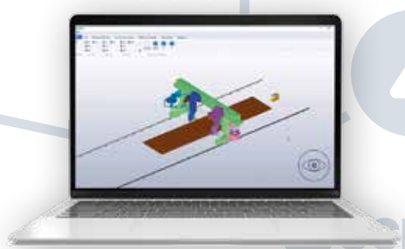
TOOL MANAGEMENT

Within the programming environment, it is possible to visualize machine tooling and to manage the different tools.

EXECUTION ENVIRONMENT

Through the eye-M PRO console, you can start the work cycle on the machine, analyse production reports and manage maintenance.

3D SIMULATOR

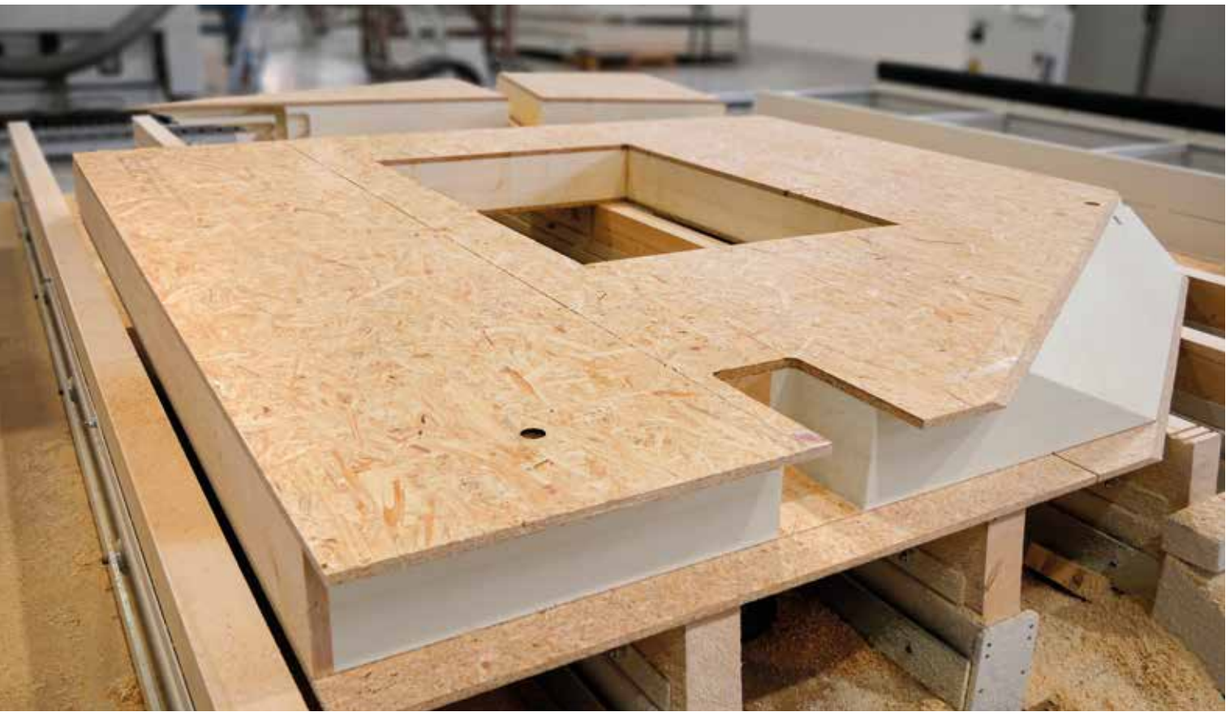


Project simulation is essential to visualise machining operations, exclude all risks of collision and possible errors, calculate production time.

INSTALLATIONS

area range

5-axis machining centres for walls, floors and curved beams



INSTALLATIONS

scm | service

WE'LL GO THE EXTRA MILE FOR YOU

SCM OFFERS A FULL RANGE OF **HIGHLY SPECIALISED SERVICES** WITH A QUALITY AND RELIABILITY THAT STEM FROM 70 YEARS OF EXPERIENCE IN THE INDUSTRY.

From installation and production start-up to services and maintenance. From training to the supply of specific original spare parts: **we provide solutions designed around you!**

SERVICE AND MAINTENANCE

- Remote support
- Scheduled maintenance contracts
- Warranty extension

TRAINING SERVICE

- Courses for machine operators
- Software and programming courses
- Training in production start-up

SPARE PARTS

- Recommended spare parts list
- E-shop
- Interactive spare-parts catalogues
- Repairs on electronic parts, glue tanks and electro-spindles

DIGITAL SERVICES

- Maestro Connect - IoT platform to be constantly connected with your machines
- Smartech - assistance with augmented reality
- My Scm portal - opening of service ticket and single point of access to the apps and Services tools

CONTACT

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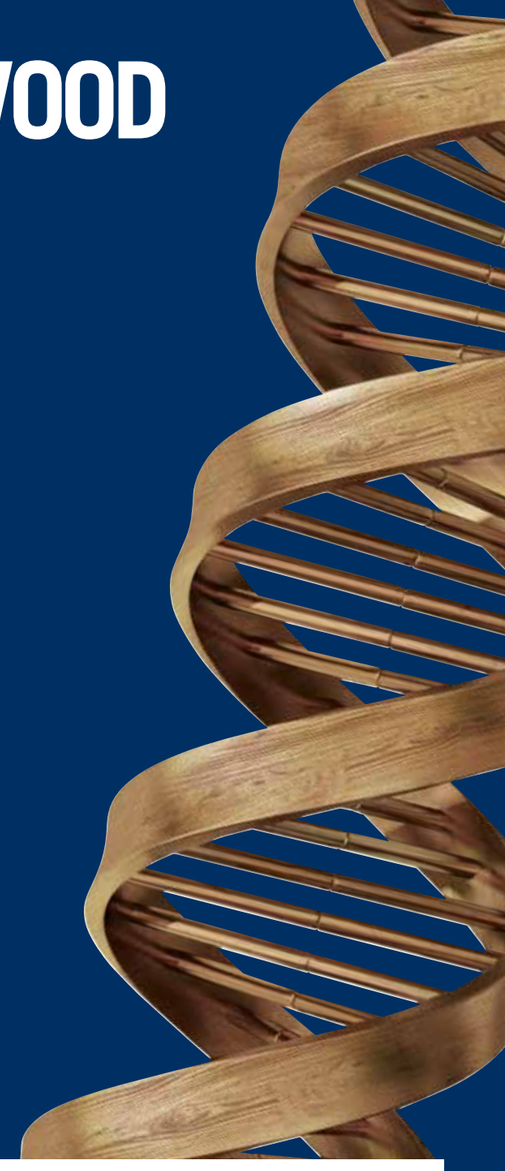
My Scm

THE STRONGEST WOOD TECHNOLOGIES ARE IN OUR DNA

SCM. A HERITAGE OF SKILLS IN A UNIQUE BRAND
70 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.

70 years history
3 main production sites in Italy
300.000 square metres of production space
20.000 machines manufactured per year
90% export
20 foreign branches
400 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.

- scm — WOODWORKING TECHNOLOGIES
- Cms — 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
- es — ELECTRIC PANELS
- steelmec — METALWORK
- scmfonderie — CAST IRON

scm woodworking technology | is more