

# hypsos

universal 5-axis machining centre



**THE IDEAL MACHINING CENTRE TO  
GIVE SHAPE TO YOUR CREATIVITY**



# HYPPOS



**THE 5-AXIS MACHINE  
UNLEASHING MOVEMENT**

## VERSATILITY



### **No limit to creativity**

The large-sized working area and the wide vertical stroke of the machining unit offer maximum volume availability and new production opportunities.

## QUALITY



### **High accuracy**

Sturdy monolithic structure made of a fixed base with integrated worktable and large section movable beam supporting the machining unit.

## STRENGTH



### **Superior finishing**

The machining unit enables to perform heavy duty operations on solid wood to carry out three-dimensional elements with the best finish quality.

## PRODUCTIVITY



### Minimized idle times

Several automatic tool change solutions to guarantee cycle time reduction and highest capacity.

## EFFICIENCY



### Best-in-class performance

The worktable, available in phenolic multilayer or aluminium, has an integrated vacuum system and grooves on the entire surface.

## RELIABILITY



### Ease of use

The Maestro active cnc operator interface allows the machine control in an easy and intuitive way.

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SOFTWARE

25

TECHNICAL DATA

# TECHNICAL FEATURES OVERVIEW

TECHNOLOGICAL ADVANTAGES



*Monolithic structure  
High accuracy.*



*Tool stores  
Minimized idle times.*



*Worktables  
Best-in-class performance.*



*Large-sized working area  
No limit to creativity.*



*Machining unit  
Superior finishing.*



*Console eye-M  
Ease of use.*

# STRUCTURE



The large-sized working area and the wide vertical stroke of the machining unit offer maximum volume availability and new production opportunities.



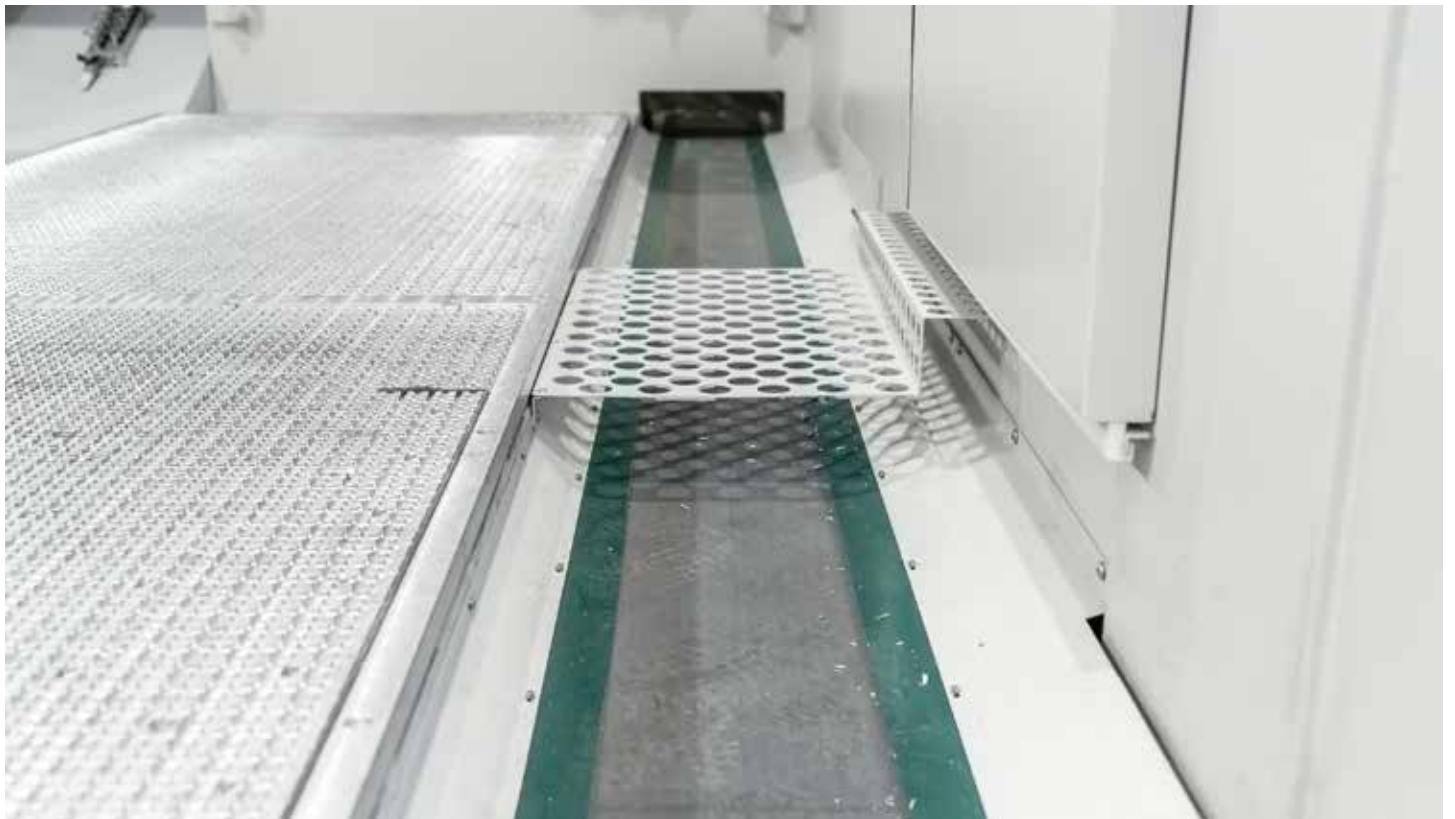


High accuracy on the whole volume thanks to the sturdy monolithic structure made of a fixed base with integrated worktable and large section movable beam supporting the machining unit.

# STRUCTURE



The full protection enclosure, equipped with front sliding doors and large transparent windows, ensures minimum noise, maximum visibility and total safety for the operator.



Motorized belt for the shavings collection over the complete machine length.



It is possible to foresee the machine top coverage with sliding bellows, to contain the dust produced inside the work area during the processing.



Excellent cleanliness of the working environment thanks to the most advanced dust containment and suction systems.



# MACHINING UNIT

## THE FREEDOM OF 5-AXIS TECHNOLOGY AT THE SERVICE OF DIVERSE AND INNOVATIVE APPLICATIONS

The high power electrospindle enables to perform heavy duty operations on solid wood to carry out three-dimensional elements with the best finish quality.





No possibility of error thanks to the device for the requalification of rotating axes that automatically re-adjust the machining head parameters.



Enhanced efficiency with the sensor for the tool length measurement.

As option, additional device for the tool diameter measurement.

# TOOL STORES



Linear tool store anchored to the structure, developed for managing heavy and large tools, ideal for solid wood processing.



Circular tool store fitted with integral protection and rear access door for the manual tool change from the machine outside.





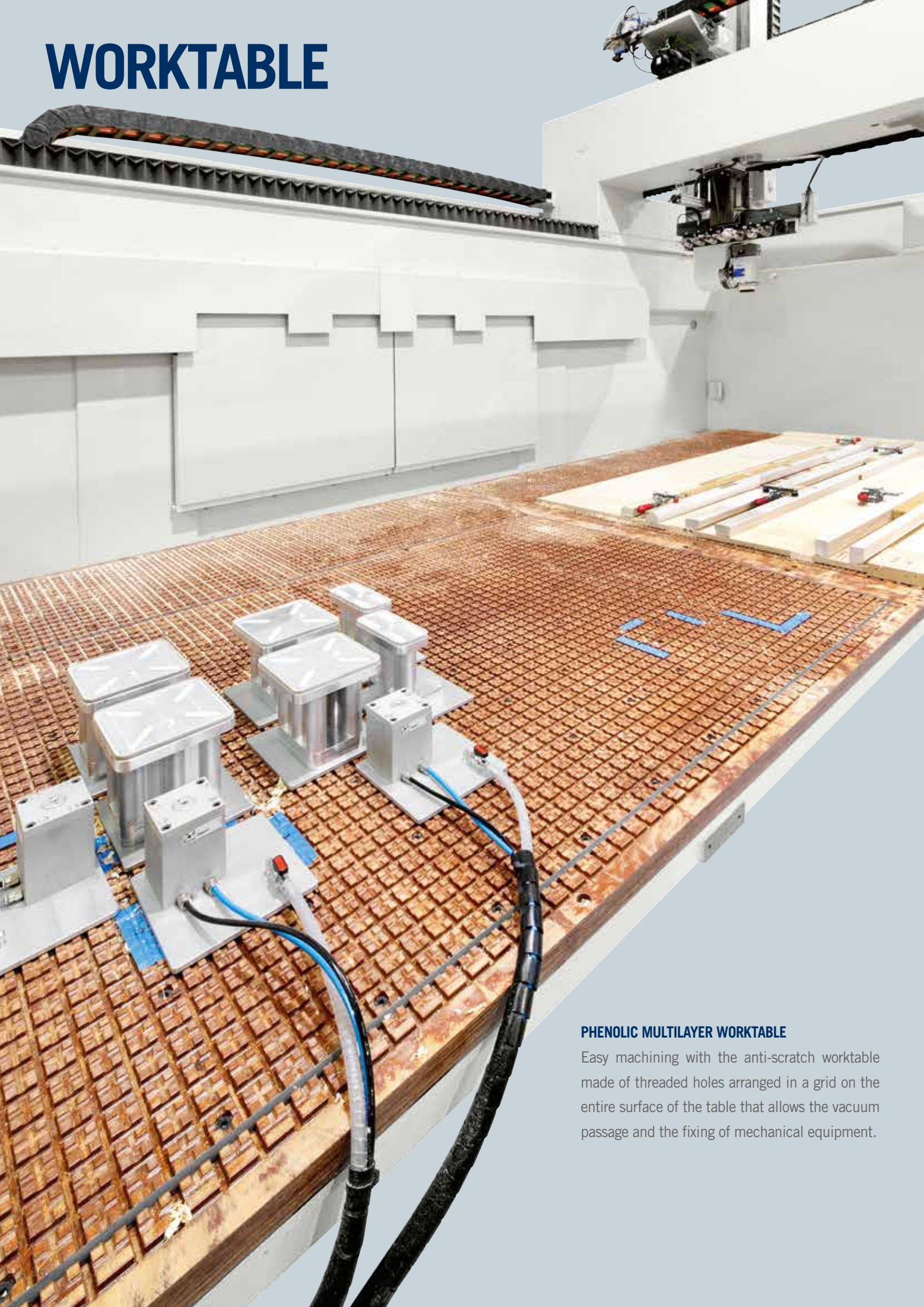
Minimized idle times with the “Pick-up” tool store installed on the machine left side.



*Ph. Leonardo Duggento for Living*



# WORKTABLE



## PHENOLIC MULTILAYER WORKTABLE

Easy machining with the anti-scratch worktable made of threaded holes arranged in a grid on the entire surface of the table that allows the vacuum passage and the fixing of mechanical equipment.





#### MULTIFUNCTION WORKTABLE

The aluminium worktable guarantees best reliability. Characterized by a perfect lasting planarity, it is not subject to warping due to changes in ambient factors such as temperature and humidity.



Wide range of work-piece locking solutions, for both worktable versions, that ensures an optimal fixing for the performing of elements having different shape and size.









Possibility of dividing the worktable into two semi-tables with a central bulkhead, for pendulum machinings.



#### **MOBILE WORKTABLES**

The APC (Automatic Pallet Change) mobile worktables solution allows maximum accessibility to the worktables, in the case of large dimensioned pieces and/or in the presence of external loading/unloading systems.

# M Maestro Digital Systems

SMART SOFTWARE AND DIGITAL SERVICES TO ENHANCE PRODUCTIVITY OF WOODWORKING AND FURNITURE INDUSTRIES.

designing > programming and data generation

Maestro office

Office

Factory

Maestro active

cutting > routing drilling

## SOFTWARE

**Simple, smart and open.**

Maestro software are tailored on the machine technology as well as on the entire process. All Maestro software share a common mission:

**easy to use**, so that any operator can easily and confidently learn and use the software

**smart**, with algorithms and computing modules aiming at the best possible result

**open** in order to integrate existing software, and provide customer the coverage of all his process.



SCM accompanies woodworking companies throughout their whole process combining machines with matching software solutions and digital services, with a constant strive to enhance company productivity.

The software solutions powered by SCM are developed to optimize machine usage as well as the entire process, providing integration with the different software existing in the company.



**Console eye-M: smart, fair, interactive, effortless, revolutionary**

SCM innovative touch screen console eye-M allows a comfortable easy navigation and use of the standardized user interface **Maestro** active.

Console eye-M is characterized by a Full HD LCD (21.5") display to ensure an effortless, convenient experience.



# Smart Pro



SMART PRO is an extremely advanced CAD/CAM software. It enables to create and manage routing, drilling, cutting, etc. operations with simplicity and reliability.

Smart Pro is available in two versions:

- **Basic** version: 3-axis CAD/CAM software, with the possibility of importing 5-axis paths from external software.
- **Advanced** version: 5-axis CAD/CAM software.

## SOFTWARE

## Office

### FUNCTIONS

Thanks to the 3D design of the machine equipped with work-piece locking devices, the software enables to perform:

#### SIMULATION

The software enables to simulate a work cycle preview, visualizing any modification and optimization introduced with important time-saving in machine setting and sample piece manufacturing.

#### COLLISION CONTROL

The software highlights any interference between tools and work-piece or machine parts.

#### OPTIMIZATION OF FREE PATHS

The software enables to optimize automatically the movements of the tools in the transition from one process to the next one.

#### MACHINING MACRO

The software has MACROs that simplify and speed up the programming of repetitive work operations.

#### INTEGRATION OF 5-AXIS TOOL PATHS

The software enables to import and integrate tool paths programmed on other CAD/CAM systems.

#### CAD PERFORMANCES

The software enables to draw free paths and to manage several CAD formats, as to be able to easily import the drawings of the pieces to be placed and processed on the machine.



# Maestro active cnc

Maestro active is the new operator interface software which has been unified across all SCM technologies. A single operator can easily and confidently run multiple machines due to controller and interface consistency: regardless the machine, Maestro active maintains the same *look&feel*, with many identical icons and navigation buttons, thus ensuring the same approach to interaction.

## EASE OF USE

The new interface has been specifically designed and optimized for immediate use via touch screen. Graphics have been redesigned for simple and comfortable navigation, with tablet-like icons on touch screen controller.

## “ZERO” ERRORS

Improved productivity thanks to guided procedures that reduce the possibility of error from the operator’s side.

## SOFTWARE

## Factory

# Maestro active cnc

## A REVOLUTIONARY APPROACH TO INTERACT WITH YOUR SCM MACHINE

### FULL MACHINE AWARENESS AND KNOWLEDGE MANAGEMENT SYSTEM

Maestro active allows to record the times related to set-up, maintenance, training and other events, tracing all the activities in a database. The operator’s know-how is also stored and made available to other people inside the organization thanks to the possibility to comment and document all production events or notifications.

### ORGANIZE YOUR PRODUCTION

Maestro active allows to create different users with different roles and authorizations (e.g.: operator, maintainer, administrator, ...). Any user can only execute the functions whose permissions have been assigned to him. It is also possible to define the work shifts on the machine and then detect activities, productivity and events that occurred in each shift.

### TOTAL QUALITY OF THE FINISHED PRODUCT

With Maestro active the quality of the finished piece is no longer put at risk by worn tools. The new Maestro active Tool Life Determination system sends notification messages as the tool reaches its end of life and recommends its replacement at the most appropriate time.

### TOOLS? NO PROBLEM!

Maestro active guides the operator during the tool change phase.



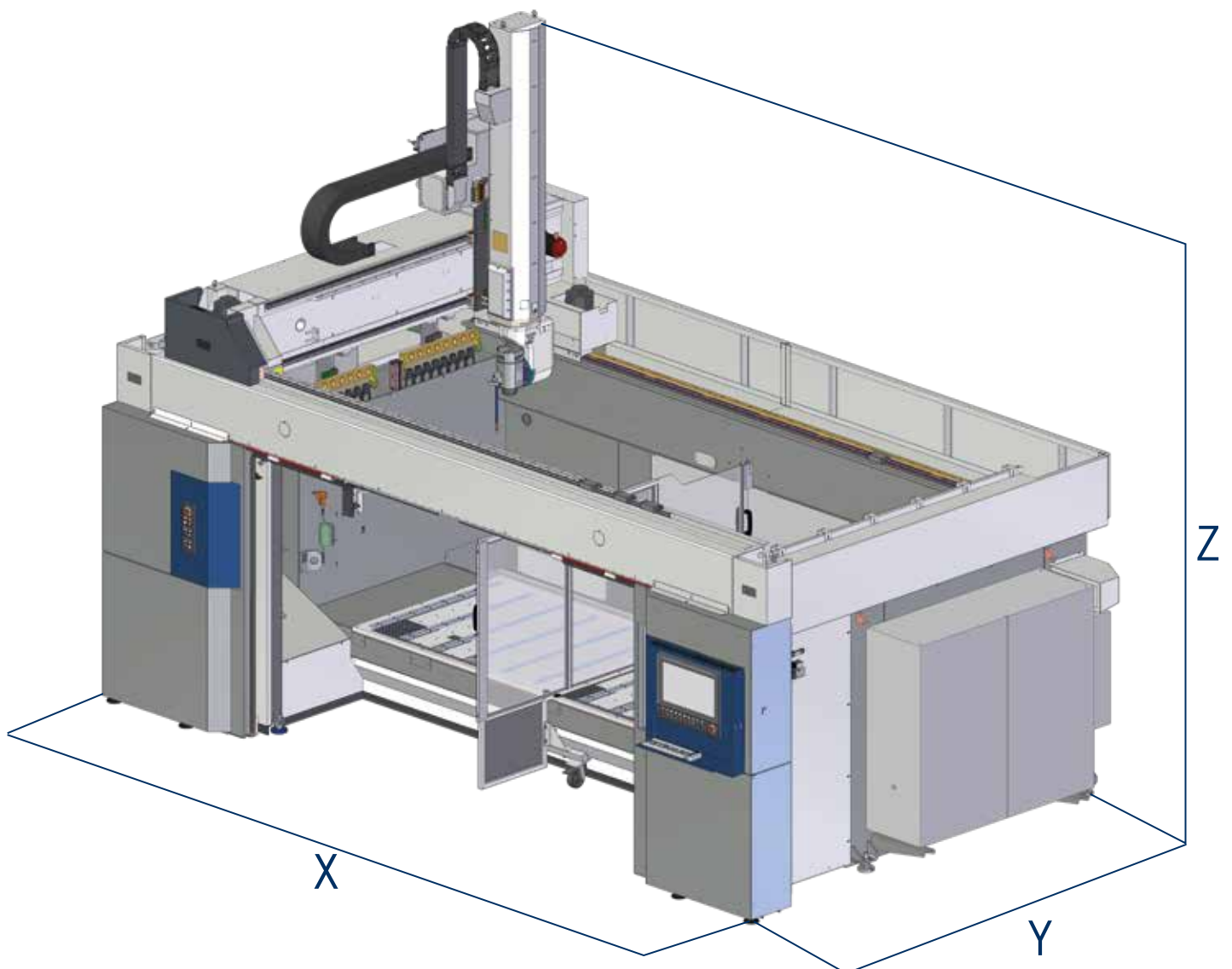
# OVERALL DIMENSIONS AND LAYOUT

hypsos		X	Y	Z
hypsos 3618	mm	6400	3900*	4450
hypsos 3626	mm	6400	4800*	4450
hypsos 4818	mm	7800	3900*	4450
hypsos 4826	mm	7800	4800*	4450
hypsos 6018	mm	9600	3900*	4450
hypsos 6026	mm	9600	4800*	4450

Note:

\* It is mandatory to foreseen 500 mm of free space on the machine rear side

\* In the presence of rear tool store, the Y dimension increases by 850 mm



hypsos		3618	3626	4818	4826	6018	6026
<b>LINEAR AXES</b>							
X-axis stroke	mm	3600	3600	4800	4800	6000	6000
Y-axis stroke	mm	1800	2600	1800	2600	1800	2600
Z-axis stroke	mm	1200	1200	1200	1200	1200	1200
X-Y-Z axes speed	m/min	80-80-70					
<b>ROTATING AXES</b>							
B-rotation	degrees	+/- 120					
C-rotation	degrees	+/- 270					
<b>MACHINING UNIT</b>							
Max. motor power	kW	20					
Max. rotating speed	rpm	24000					
<b>TOOL STORES</b>							
Linear (standard)	positions	8/12					
Circular (option)	positions	20					
Pick-up (option)	positions	8					

**COMPANY WITH  
QUALITY SYSTEM  
CERTIFIED BY DNV  
ISO 9001**

*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 noise levels measured according to the operating conditions established by ISO 3746/95, EN 848-3E, UNI EN ISO 11202/97.  
Acoustic pressure in process (routing) 78.2 dB(A) (measured according to EN 848-1, uncertainty U = 4 dB).  
Acoustic power in process (routing) 93.2 dB(A) (measured according to EN 848-1, uncertainty U = 4 dB).*





*Even if there is a correlation between above mentioned "conventional" noise emission values and average levels of personal exposure over eight hours of operators, these last also depend on the real operating conditions, duration of exposure, acoustic conditions of the working environment and presence of further noise sources, this means the number of machines and other adjacent processes.*

# 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!**

 <p><b>SERVICE AND MAINTENANCE</b></p> <ul style="list-style-type: none"> <li>• Remote support</li> <li>• Scheduled maintenance contracts</li> <li>• Warranty extension</li> </ul>	 <p><b>TRAINING SERVICE</b></p> <ul style="list-style-type: none"> <li>• Courses for machine operators</li> <li>• Software and programming courses</li> <li>• Training in production start-up</li> </ul>
 <p><b>SPARE PARTS</b></p> <ul style="list-style-type: none"> <li>• Recommended spare parts list</li> <li>• E-shop</li> <li>• Interactive spare-parts catalogues</li> <li>• Repairs on electronic parts, glue tanks and electro-spindles</li> </ul>	 <p><b>DIGITAL SERVICES</b></p> <ul style="list-style-type: none"> <li>• Maestro Connect - IoT platform to be constantly connected with your machines</li> <li>• Smartech - assistance with augmented reality</li> <li>• My Scm portal - opening of service ticket and single point of access to the apps and Services tools</li> </ul>

**CONTACT**

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# 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

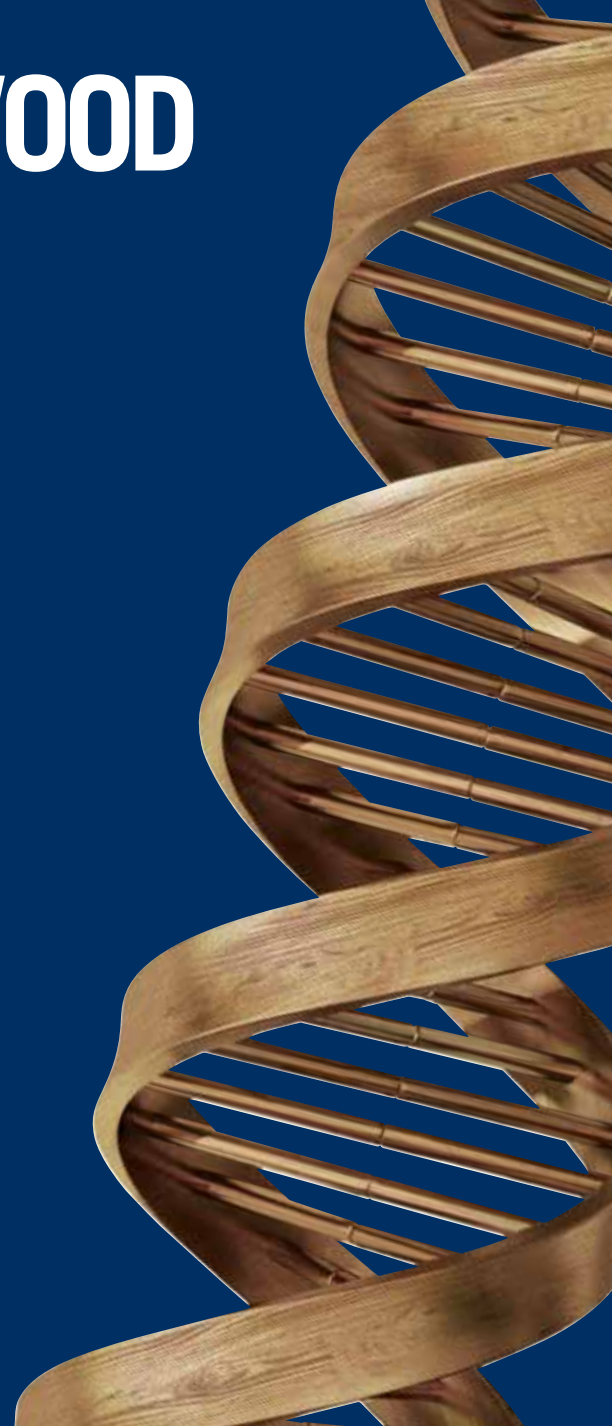
**90%** export

**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.



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



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