morbidelli p200

machining centre for drilling, routing and edgebanding



THE AFFORDABLE ALL-IN-ONE TECHNOLOGY





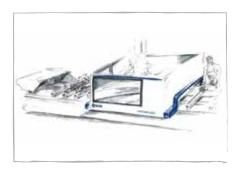
... ALL RESPONSIVE



EVERYTHING YOU HAVE ALWAYS DREAMED OF A CNC MACHINING CENTRE BUT WERE TOO AFRAID TO ASK



FREEDOM

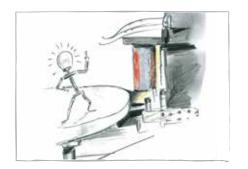


Optimizing the space in your factory due to the PRO-SPACE solution.

Accessible and ergonomic 360° all around, no floor obstructions: all the components are within the base.

Total safety and freedom to load large panels (as wide as 2200 mm) due to the work table being entirely accessible.

TOP QUALITY



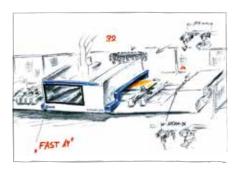
The most performing and compact edgebanding unit that allows the edge application on panels up to 80 mm thick.

Unrivalled finishing with new direct drive **JQX** (**J**ust **Q**uality e**X**treme) 5-axis electrospindle.

Reduced maintenance, owing to the **RO.AX** (Rotoaxial spindle technology) drilling bits. It is recommended only after more than 1000 hours of work.

60% of time saved on drilling cycles with the new drill-bits designed to guarantee the best effectiveness on all types of material and building styles.

FASTER



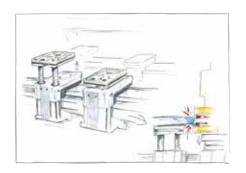
Beyond imagination, up to 60 tools always available on board.

Less than 15" for the tool change with the 14 position **FAST** tool changer.

morbidelli p200 machining centre for drilling, routing and edgebanding



FLEXIBLE

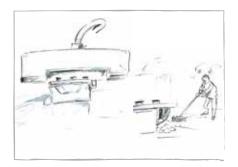


From wood to plastic, from panel to furniture, from kitchen doors to windows. The right solution configured for all your needs and your investment plan.

Zero idle times for set-up operations and no compromise for the machine performance with the versatility and free configurability of the TV FLEXDRIVE and TV FLEXMATIC work tables.

With HE-POD the work table becomes 3D: a single positioning and no displacement.

CLEAN



No problem with dust or shavings as a result of the intelligent solution of the dust collection box located in an ergonomic position.

Free space on the floor with the vacuum pump integrated in the machine base.

SOFTWARE



CAD/CAM programming software to design all the production processes.

- **42 TECHNICAL DATA**
- 43 SERVICE-SPARE PARTS

TECHNICAL FEATURES OVERVIEW





Wide availability of tools due to the TRC rear chain tool changer with 32 positions.



(Iscm

Unrivalled finishing with new direct drive JQX (Just Quality eXtreme) 5-axis electrospindle.

Reduced maintenance, thanks to the RO.AX (Rotoaxial spindle technology) drilling bits. It is recommended only after more than 1000 hours of work.



The most performing and compact edgebanding unit that allows the edge application on panels up to 80 mm thick.



TRB tool changer with 14 positions.



Free space on the floor with the vacuum pump integrated in the machine base.





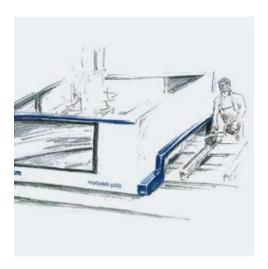
The work table becomes 3D: HE-POD.



No problem with dust or shavings as a result of the intelligent solution of the dust collection box located in an ergonomic position.



ALL FREEDOM



Optimizing the space in your factory due to the PRO-SPACE solution.

Accessible and ergonomic 360° all around, no floor obstructions: all the components are within the base.

Total safety and freedom to load large panels (as wide as 2200 mm) due to the work table being entirely accessible.

MINIMUM OVERALL DIMENSIONS MAXIMUM SAFETY AND FLEXIBILITY





"PRO-SPACE" PROTECTIONS

Loading zone completely free in order to reduce to a minimum the space occupied. The absence of perimeter protections facilitates the work table access on all the sides of the machine.



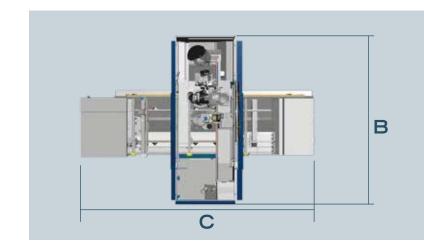
morbidelli p200 machining centre for drilling, routing and edgebanding





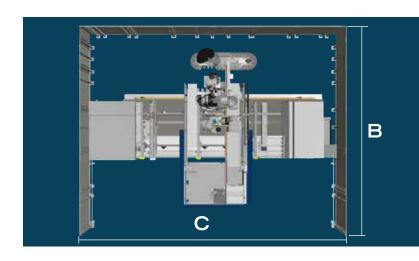
MINIMUM OVERALL DIMENSIONS MAXIMUM SAFETY AND FLEXIBILITY: PRO-SPACE PROTECTIONS

Loading zone completely free in order to reduce to a minimum the space occupied. The protections allow the machine to be used with a feed speed up to 25 m/min in X direction. The absence of perimeter protections facilitates the work table access on all the sides of the machine.



TOTAL FREEDOM AND HIGH PRODUCTIVITY: PRO-SPEED PROTECTIONS

Protection system for the machine use to the maximum speed of 60 m/min. When the operator enters into the loading area, which is delimited by the front photocell barrier, the machine automatically reduces the speed; when the operator leaves the loading area, the system restores the maximum speed.

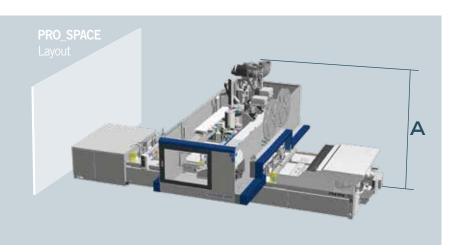


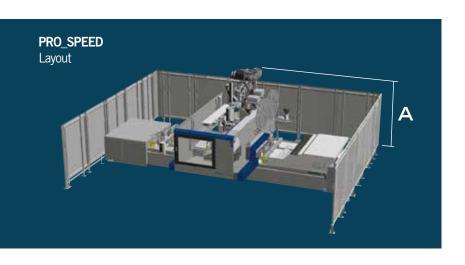
OVERALL DIMENSIONS

		Α	В		С	
			PRO-SPACE	PRO-SPEED	PRO-SPACE	PRO-SPEED
MORBIDELLI P200 WORK TABLE						
Working area 3110 x 1600	mm	2780	4600 (5600*)	5740	6780 (7130*)	7300
Working area 3710 x 1600	mm	2780	4600 (5600*)	5740	7380 (7730*)	7900
Working area 5510 x 1600	mm	2780	4600 (5600*)	5740	9180 (9530*)	9700

^{*} It includes the operating area







ALL TOP QUALITY



The most performing and compact edgebanding unit that allows the edge application for panels up to 80 mm thick.

Unrivalled finishing with new direct drive **JQX** (**J**ust **Q**uality e**X**treme) 5-axis electrospindle.

Reduced maintenance, owing to the **RO.AX** (Rotoaxial spindle technology) drilling bits. It is recommended only after more than 1000 hours of work.

60% of time saved on drilling cycles with the new drill-bits designed to guarantee the best effectiveness on all types of material and building styles.

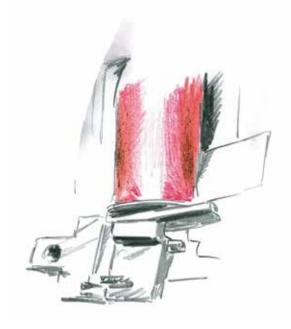


COMPACT AND RELIABLE: EDGEBANDING UNIT

The most performing and compact edgebanding unit that allows the edge application up to 84 mm high for panels up to 80 mm thick.



The automatic adjustment of the edging vertical limiters allows maximum machining flexibility, working in rapid succession on panels with different thicknesses; it is particularly effective for batch 1 production.



The new **SBRINDLE** device can precisely detect the position of the tapes' edge "on-the-fly" and without slowing down, allowing 0/360° junctions on constant geometry stretches with minimum length of 80 mm.



The edging magazine can always make available the best suited to the machining set. Selection, feeding and supply speed are managed by the numeric control.

GLUING UNIT

The quick change glue tank has a unique design with a spreading roller featuring a built-in heating element to guarantee uniform gluing and lasting adhesive chemical properties for the best possible product performance. Fast change-over allow preventive maintenance or a change of glue (colour or type), slashing down times.



Glue is loaded in masked times into the granule feed system.



EDGEBANDINGFINISHING HEADS AND AGGREGATES



Multifunction trimmer + edge scraper unit



Blade unit for edging end trimming



Head for post-formed panels



Head for cleaning 90° internal angles



Edge trimming.

Edge scraping.



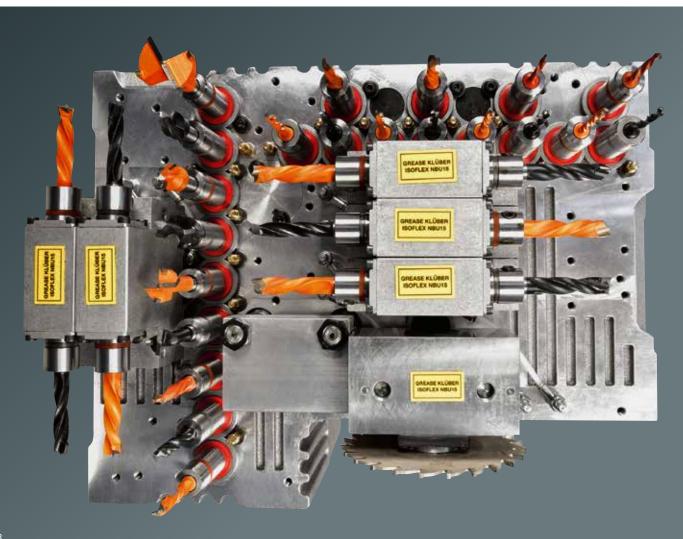


OPERATING UNIT: **DRILLING UNIT**

The higher drilling capacity in its category up to 21 vertical spindles, 12 horizontal spindles and an independent blade unit.

INDESTRUCTIBLE AND WITH LOW MAINTENANCE

The sturdiness of drilling heads is proven by the reduced maintenance costs: it is recommended only after more than 1000 hours of work.







60% of time saved on drilling cycles with the new drill-bits designed to guarantee the best effectiveness on all types of material and building styles.

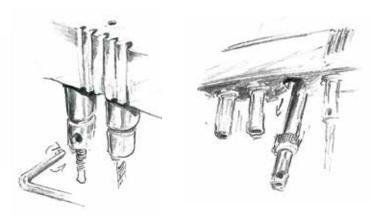
THE PERFECT DRILLING



RO.AX SPINDLE

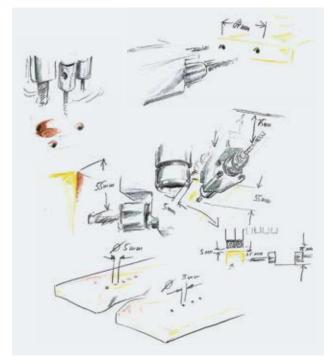
Zero play during machining with the new RO.AX technology (Rotoaxial spindle technology), the most efficient spindle on the market with rotation speeds up to 8000 rpm.



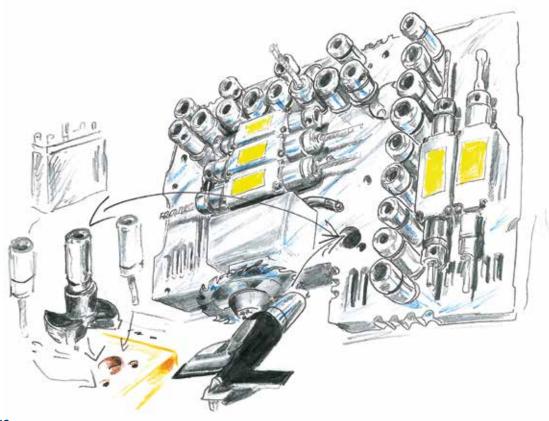


High performance drilling units owing to the spindles with innovative design. The new drilling spindle offers optimal solutions to achieve the highest quality of finishing and the maximum speed of the whole execution:

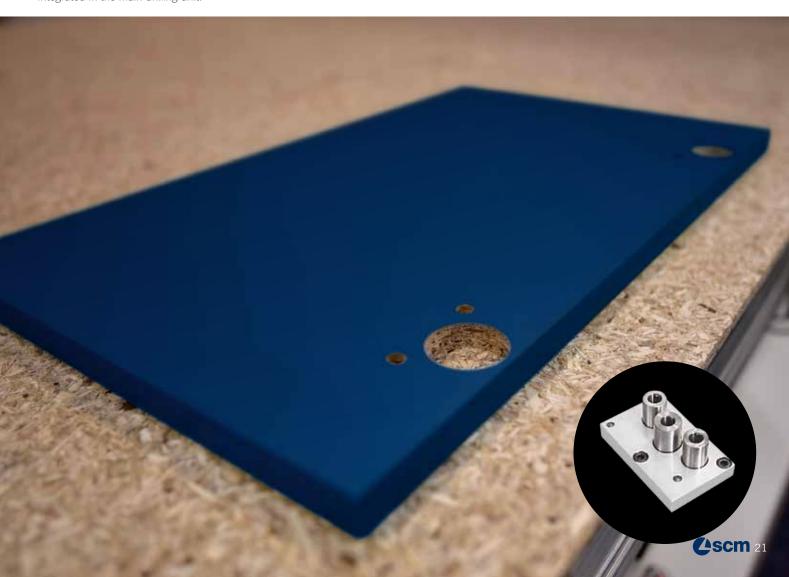
- more than 50% increase in rigidity: rod spindle diameter from 20 mm
- reduction of vibrations and guaranteed drilling quality on all materials: rod spindle guide system with special roll bearings
- lower operation noise and more rigidity:
 absence of radial friction between spindle and rotating bearings
- reduced maintenance costs: new system to disassemble every spindle
- more reliability: less components employed



morbidelli p200 machining centre for drilling, routing and edgebanding



HINGE DRILLING:
ONE STEP WORTH THREE!
Possibility to carry out 3 simultaneous drillings with a single head integrated in the main drilling unit.



UNIVERSAL,
HIGH SPEED
ROTATION
TO PRODUCE OBJECTS
WITH ANY KIND
OF SHAPE ON ANY
KIND OF MATERIAL

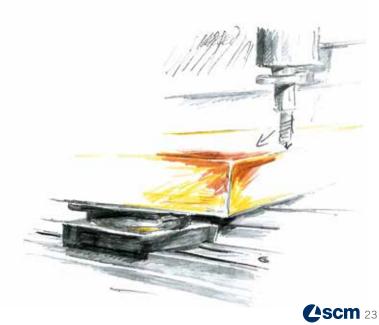


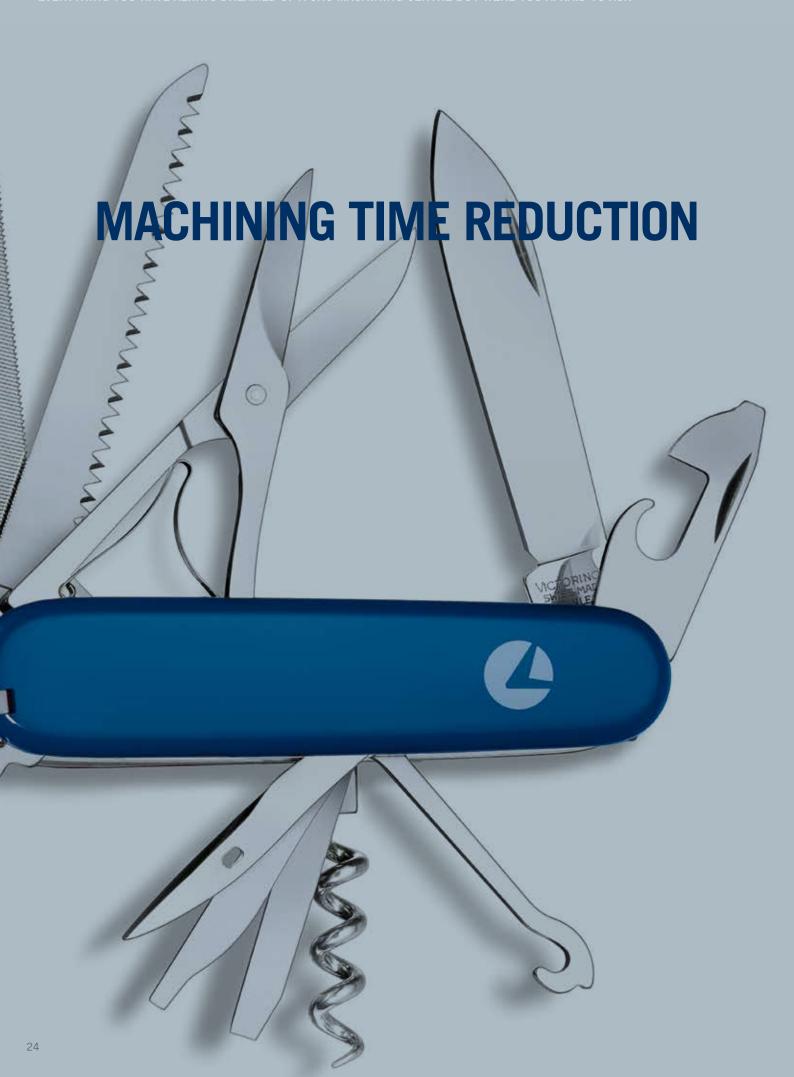
Very high finishing quality with the **JQX** (**J**ust **Q**uality e**X**treme) 5-axis electrospindle, with direct drive and up to 12 kW power, which ensures total absence of vibrations even with large material removals at high speeds.

The lightweight structure and the excellent price/quality ratio make this electrospindle ideal for those who are looking for a flexible and practical product but with high level performance.

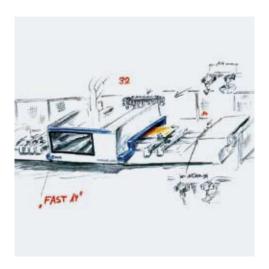








ALL FASTER



Beyond imagination, up to 60 tools always available on board.

Less than 15" for the tool change with the 14 position **FAST** tool changer.



ALL AT YOUR SPINDLE FINGERTIPS! UP TO 60 TOOLS ALWAYS AVAILABLE ON BOARD

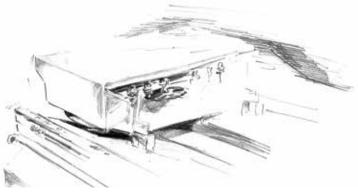
NO IDLE TIME for the tool change from a machining process to another one with the 14 position **FAST** tool changer.





Wide range of tools available to the operator with the rear tool changers up to 32 positions.

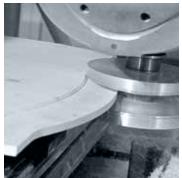


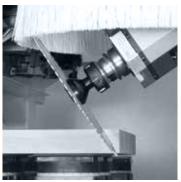


TRB side tool changer with 14 positions.











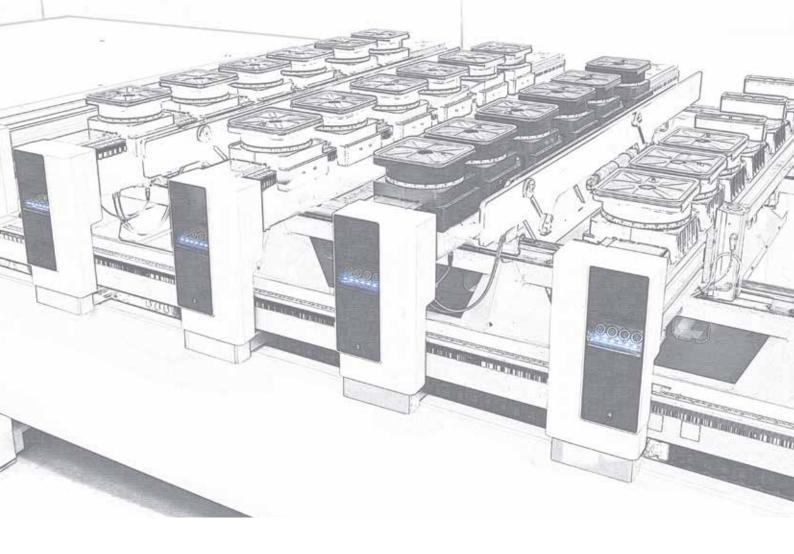
ALL FLEXIBLE



From panel to furniture, from kitchen doors to windows. The right solution configured for all your needs and your investment plan.

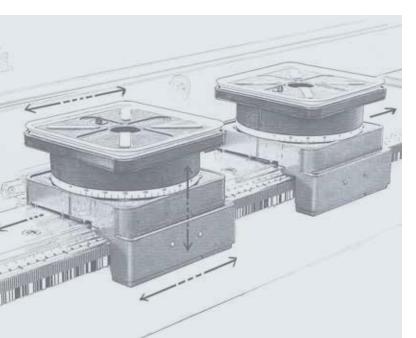
Zero idle times for set-up operations and no compromise for the machine performance with the versatility and free configurability of the **TV FLEXDRIVE** and **TV FLEXMATIC** work tables.

With HE-POD the work table becomes 3D: a single positioning and no displacement.



RELIABLE, FAST AND USER FRIENDLY: **FLEXDRIVE WORKTABLE**

Thanks to an innovative positioning technology, **FLEXDRIVE** allows to manually set up a work table through LED light indicators positioned both on bars and locking systems.



- Reliable. No mistakes in the locking systems positioning thanks to the automatic verification: if the set-up is not correct, the program won't start.
- Fast. Minimized set-up times thanks to the lights that guide the operator by indicating the exact position of the bars and locking systems (pods and clamping devices).
- User friendly. There is no need for an expert operator: LEDs make the machine intuitive and easy to set.

morbidelli p200 machining centre for drilling, routing and edgebanding

REMOVE









- Bar with central red LED: one or more locking systems must be removed.
- Locking systems with fixed red LEDs: locking systems to be removed.



ADD





• Bar with central blue LED: one or more locking systems must be added.



MOVE





• The fixed green LEDs start flashing more and more as the correct bar position is approached. When the target position is reached, the blue strip on the bar lights up.











• Locking systems work in the same way: when the target position is reached, the double green LED lights up.



COMPLETED SET-UP









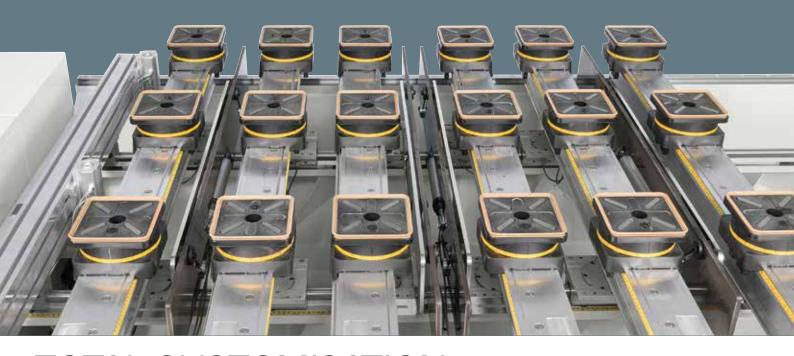


When the set-up is finished, LEDs of both locking systems and bars set to "completed" status:

• Bars: Blue LEDs

• Locking systems: LEDs off



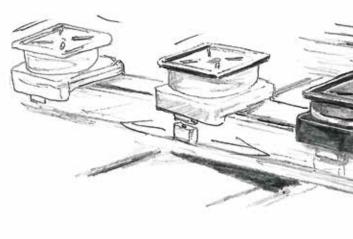


TOTAL CUSTOMISATION: TV FLEXMATIC RAILS WORK TABLE

Automatic work table that allows the management up to 6 vacuum pods on a single rail, according to the dimensions and shape of the work piece to be machined, in order to always have the best holding without risks of collision.

Available also with manual version TV FLEX.



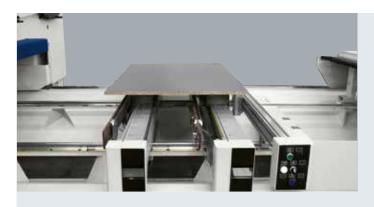


morbidelli p200 machining centre for drilling, routing and edgebanding

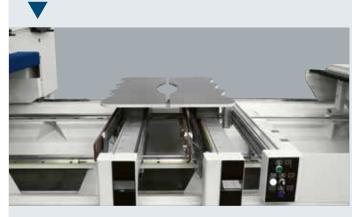




It is possible to add or remove vacuum pods or clamps with a simple movement of the hand; the number and the position are automatically detected.

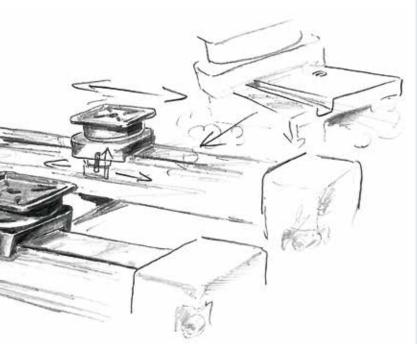


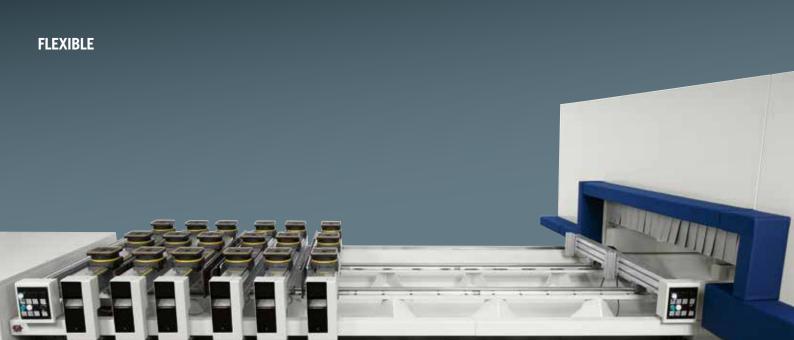




From a single panel can be obtained more elements and automatically re-position them to carry out all machining without interrupting the production cycle; at the end the work pieces are returned to the initial position to facilitate the unloading from the work table.

No problem for the sliding of vacuum pods or clamps due to the blowers positioned along the whole rail that guarantee a constant cleaning.

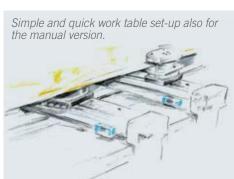




NO LIMITS ON RAILS POSITIONING: NO OBSTACLE ON THE WORK TABLE

IDEAL FOR LARGE SIZE PANELS

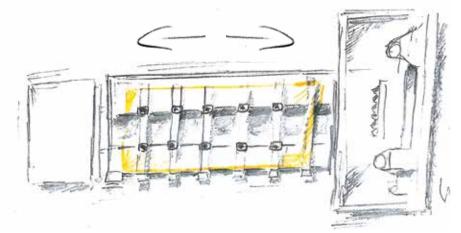














Comfortable pushbutton to have at your fingertips all the necessary commands for the programs execution.



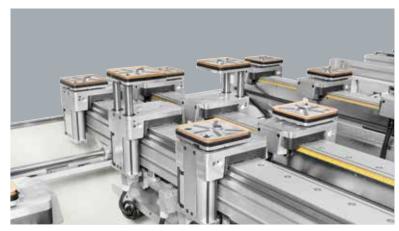
Easy positioning of heavy work pieces and large panels with the lifting support.

THE WORK TABLE BECOMES 3D: HE-POD

Cycle time reduced by 30%, owing to HE-PODs which allow to use the whole working area for the work pieces positioning and the tool paths optimisation.



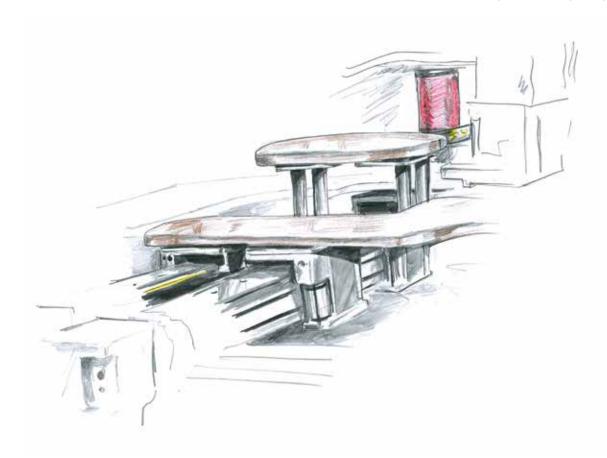
Maximum exploitation of the work table performance:a single positioning and no displacement.



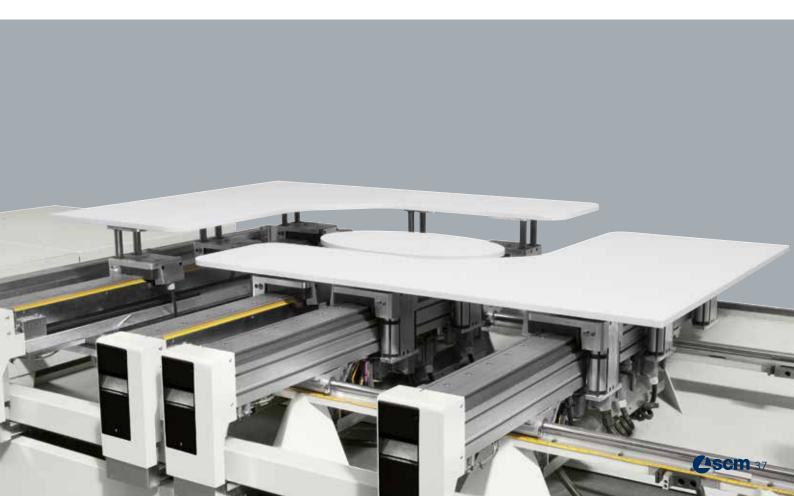
No constraint on locking: any pod can be associated to a work piece in order to lock both panels and any shaving.



Maximum flexibility: use of HE-POD and standard pods in the same program.

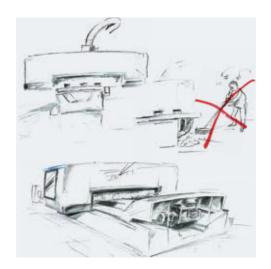


A SINGLE POSITIONING AND NO DISPLACEMENT!





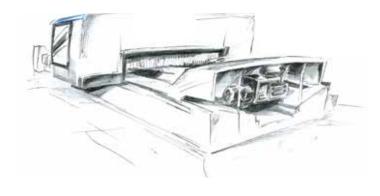
ALL CLEAN



No problem with dust or shavings as a result of the intelligent solution of the dust collection box located in an ergonomic position.

Free space on the floor with the vacuum pump integrated in the machine base.

SPACE? NO PROBLEM!



Free access without obstacles on the floor, cable-holder chain and vacuum pump integrated in the machine base.







Rapidity and ergonomics to equip and do maintenance to the operating group also in PRO-SPACE version due to the practical front and rear openings.

No problem with dust or shavings as a result of the dust shavings conveyor belt equipped with exhaust outlet and the dust collection box located in an ergonomic position.





Maestro Digital Systems

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



routing

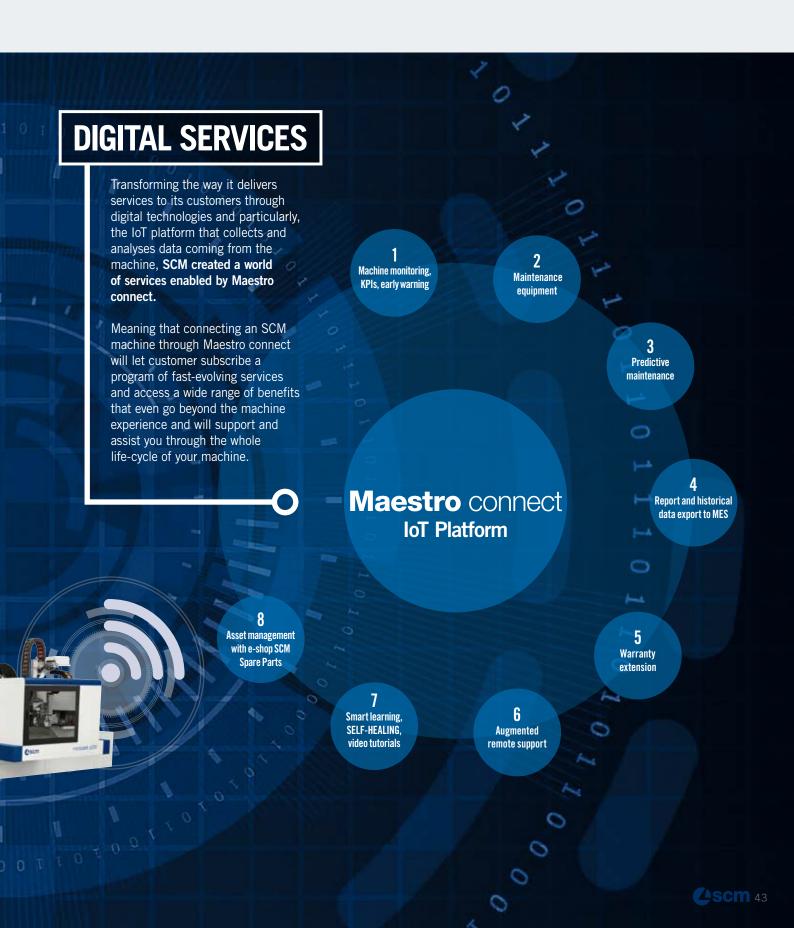
drilling

edgebanding

cutting

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.





THE SOFTWARE THAT SIMPLIFIES THE WORK

CAD/CAM programming software to design all the production processes. Developed in Windows environment it ensures easy programming with an advanced, simple and intuitive sketching environment that features all the tools necessary to design the parts, tools management and the relative machining operations.

All the procedures are contained in a perfectly integrated and high performance software.

SUITE



Maestro pro view

3D Simulator that allows users access to a three dimensional model of their machine in their office and view the operations that will be carried out during the production in advance on their PC.



Maestro 3D

The module integrated in the Maestro suite is designed to program three dimensional objects on 5-axis machining centres.



Maestro apps

Maestro apps is a library of programming functions that are always available and easy to use, developed by SCM for the production of parts for doors, windows, stairs, furniture and furnishings.



Maestro msl connector

Connector for third-parties with design software.



Maestro edge

It allows users to manage the routing, drilling and treatment of the edges of shaped panels and components.



Factory

A REVOLUTIONARY APPROACH TO INTERACT WITH YOUR SCM MACHINE

FULL CONTROL OF PRODUCTION PERFORMANCES

The creation of customisable reports by operator, shift, program, forecast period (and much more) allows to monitor, optimise and improve the performance.

FULL MACHINE AWARENESS AND KNOWLEDGE MANAGEMENT SYSTEM

Recording of 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 organisation thanks to the possibility to comment and document all production events or notifications.

ORGANIZE YOUR PRODUCTION

Creation of different users with different roles and authorisations (e.g.: operator, maintainer, administrator, ...). Possibility of defining the work shifts on the machine and then detect activities, productivity and events that occurred in each shift.

TOTAL QUALITY OF THE FINISHED PRODUCT

The quality of 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, taking into account the programs to be executed.

A WORLD OF SERVICES FOR GREATER EFFICIENCY

Maestro connect

CONNECT YOUR MACHINE AND GAIN ACCESS TO A WORLD OF SERVICES

Connecting your machine through Maestro connect will let you subscribe a program of fastevolving services. You will access a wide range of benefits that even go beyond the machine experience and will support and assist you through the whole life-cycle of your machine.

FASTER SERVICE INTERVENTION AND PROBLEM RESOLUTION

Maestro connect provides real time data and Health Records of the Machine also to SCM Service drastically reducing its troubleshooting time.

WORKING ALWAYS IN PERFECT CONDITIONS

Maestro Connect can provide a full kit of sophisticated sensor devices to detect and warn the operator in case of alarming conditions of the machine.



DIGITAL SERVICES

SMART MAINTENANCE: DOWN TIME REDUCTION

Maestro connect reduces maintenance downtime thanks to:

- Automatic maintenance notifications and scheduling, to prevent failures and work in the best conditions of use
- Direct connection to SCM Service thanks to an automatic ticket opening function

SMART MACHINE: ANYTIME, ANYWHERE AWARENESS

Connecting your SCM machine also means having your machine always at hand. Immediate instant notifications in case of alarms or downtimes allow customers to immediately take an action thus optimizing his productivity.

SMART MANAGEMENT: PRODUCTION PERFORMANCE OPTIMIZATION

Reports and KPIs allow further analysis thus increasing Customer Knowledge about his performance and results.

SMART PARTS: FAST PARTS REPLENISHMENT

Repairs are scheduled proactively since the system provides Spare Parts suggestions and a direct Integration with Smart Parts e-shop.

SMART LEARNING: EXECUTE WORK AND RECEIVE PROBLEM SOLVING SUPPORT

Maestro connect provides an intuitive Problem Solving Management System to help the operator to self solve any issue..

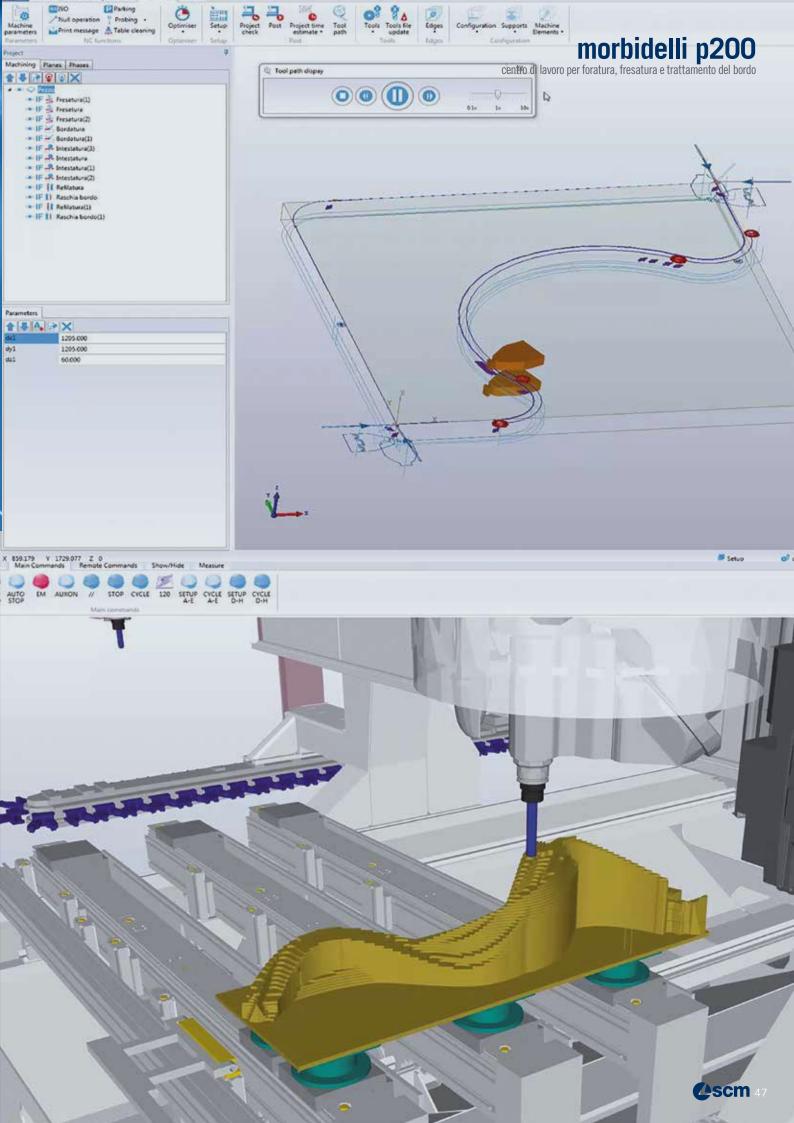
SMARTECH: FASTER AUGMENTED SUPPORT

Maestro connect allows augmented reality support by means of Smartech: the head-wearable computers with wireless connectivity that will bring the interaction between customer and SCM service to a higher level.

SMART WARRANTY: YOUR MACHINE ALWAYS IN PERFECT CONDITIONS

Together with scheduled maintenance contracts, you can take care of your asset by doubling the warranty from 1 year to 2 years* for complete peace of mind!

* please read the complete contract to understand terms and conditions.



ALL READY



 $\boldsymbol{1}$ technician, $\boldsymbol{1}$ day and the machine is up and running!

TECHNICAL DATA

MORDIBELLI P200		
AXES		
Z axis panel passage	mm	180
Vectorial speed - X-Y axes	m/min	56 (PRO-SPACE) 78 (PRO-SPEED)
ROUTING UNIT		
Motor power (max.)	kW (hp)	15 (20,5)
Rotation speed (max.)	rpm	24000
Available tools on tool changer (max.)	places	60
DRILLING UNIT		
Independent vertical spindles (max.)	no.	21
Independent horizontal spindles (max.)	no.	12
Rotation speed (max.)	rpm	8000
Integrated blade in X, diameter	mm	125
INSTALLATION		
Exhaust air consumption	m³/h	4430
Exhaust air speed	m/sec	25
Exhaust outlet diameter	mm	250



THE USE OF POWER ONLY WHEN IT IS REQUIRED

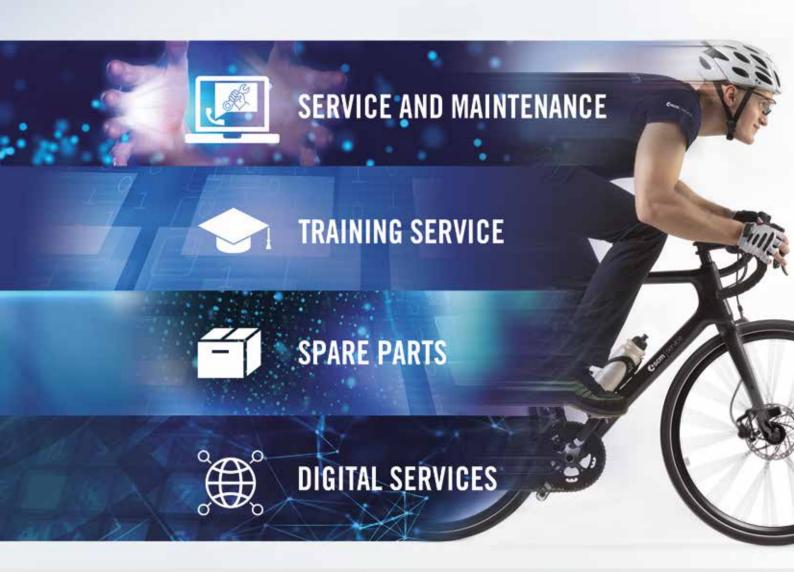
Sav€nergy allows making things operate only when they are really necessary. It means the machine automatically enters "stand-by" mode when there are no panels to be machined.

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 CF Norms.

Maximum noise levels measured according to the operating conditions established by EN 848-3:2012 Acoustic pressure in process (routing) 81 dbA (measured according to EN ISO 11202:2010, uncertainty K = 4 dB) Acoustic power in process (routing) 98 dbA measured according to EN ISO 3746:2010, uncertainty K = 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.





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!**

CONTACT

SCM SERVICE

via Emilia 77 - 47921 Rimini - Italy tel. +39 0541 700100 scmservice@scmgroup.com www.scmwood.com **SCM SPAREPARTS**

Via Emilia, 61 - 47921 - Rimini - Italy tel. +39 0541 674111 spareparts@scmgroup.com www.scmwood.com





WE'LL GO THE EXTRA MILE FOR 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

THE STRONGEST WOOD 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

SCM GROUP, A HIGHLY SKILLED TEAM EXPERT IN INDUSTRIAL MACHINES

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 equipment and components for machining the widest range of materials.

AND COMPONENTS

INDUSTRIAL COMPONENTS

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





4steelmec

Cscmfonderie

SPINDLES AND TECHNOLOGICAL COMPONENTS

ELECTRIC PANELS

METALWORK

CAST IRON







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