

SCM CNC MACHINING CENTRES FOR NESTING, DRILLING, ROUTING AND EDGEBANDING

THE “SCM NEXTING GENERATION” HAS BEGUN

morbidelli x200/x400

In a world that is moving towards flexible and batch one production, nesting technology is certainly a focal point for furniture manufacturers. The possibility to carry out a great number of machining operations and to manage also shaped pieces allows producers a greater flexibility to carry out most operations on a single numerically controlled machine.

With the benefit of “nesting” there are some limitations to traditional nesting machines. The three main issues that are strictly connected with the nesting process are spoil board management, productivity (if compared with beam saws) and holding capacity on small pieces.

SCM has designed, developed and tested innovative solutions to overcome these issues for the customers and gives them the opportunity to improve their productivity and flexibility at the same time. The results of work done in recent years are reflected in the **new morbidelli x200 and x400 CNC nesting machining centres**.

A Spoilboard is a necessary requirement for nesting as it would not be possible to work directly on the machine’s table without damaging it. However, this brings with it a series of complexities that must be managed by the operators. Starting from the skimming, up to the change of spoilboards that have ended their useful life, or the removal of the spoilboard, when there is a need to work with pods or jigs that must be fixed on the machine’s table.

The NeXting Generation of SCM machines has exclusive and innovative features which allow the customer to manage the spoilboard in the easiest possible way, simply not removing it as previously required: executing horizontal drilling on the panel or placing vacuum cups on the table are operations which are involving nothing else but dedicated units with a great saving of time in managing the machine thus increasing flexibility and productivity.

A **new labeling system and cutting** speed up to 50 m/min will allow SCM customers to reach **a productivity like never seen before** on a nesting machine. And that’s not all: like the cars many of us drive everyday, it is possible to use the new morbidelli series in *smooth, neutral* or *dynamic* mode (the equivalent of *comfort, drive and sport*) in order to quickly customize the execution of programs.

Other important innovations introduced concentrate on the ability of the machine to hold down **also the smallest workpieces** while machining. The **optimization of the vacuum holding capacity** has been, for SCM, one of the main focuses during the development of the new morbidelli series. Like many other nesting machines, the new **morbidelli x200 and x400** can be equipped with a zoned worktable that enables suction areas to be closed when not in use. These are the only machines where is possible to have the **new X-Vacuum system**, a real dynamic vacuum activation development. An innovative and automatic feature that carries the vacuum right where it’s needed.

Very high performance, great configurability and a competitive price allows SCM to create a machine tailor made for each customer.

A NEW ERA FOR DRILLING

All-round quality and extreme precision, combined with an unbeatable productivity and a considerable simplification of the operator's work: these are the strong points of this range of numerical control drilling solutions which SCM is presenting at Ligna. The new generation of **morbidelli cx220** and **cx210**, sectoral points of reference for compact CNC drilling solutions, and the new **morbidelli ux200d**, CNC drilling solution which is even more complete and flexible, meet the demands of an increasingly more custom and integrated production, capable of satisfying the individual needs of the specific company without sacrificing the advantages of industrial production.

morbidelli cx220

The ideal solution for "batch 1" processing, the latest generation of CNC **morbidelli cx220** drilling centres presents important new features at Ligna.

The new **drilling heads** with compact dimensions, guarantee a level of performance and efficiency never achieved before now, thanks to the new design.

The **worktable** even allows drilling of delicate surfaces with excellent finish, whilst the new, **shaped clamps** mean that panels can be machined even in positions inside the clamps, greatly reducing cycle times and optimising workpiece clamping.

The new **panel return conveyor device** is also on show as well as the possibility of arranging new **customised machining units** like the group for "Clamex" type joints and the **new groups for the insertion of dowels** for increasingly customised operations.

morbidelli ux200d

The revolution of the SCM drilling machines can also be found in the new **morbidelli ux** generation with new exclusive transversal functions within the range and the launch of the **morbidelli ux200d** with even greater performance on both large and small sized panels.

The new exclusive **dowelling system** with variable axis double inserter that can be adjusted according to the distance between the holes is worth mentioning. A solution that makes this model designed for all drilling, routing and blade cut operations, even more versatile and efficient.

The functions that are transversal to the entire range include the magazine for **automatic tool change of the 2** (upper and lower) **electro-spindles**, for simultaneous working on opposite sides of the panel, and the new groups for "Clamex" type joints.

An additional "plus" is the evolution of the drilling cycles at software level and the possibility of automatically loading any size of panel.

The **morbidelli ux200d** can also work as a "stand-alone" machine or be integrated into a production line, via various types of piece movement with automatic loading and unloading.

ALL-IN-ONE TECHNOLOGY

morbidelli m100

The **morbidelli m100** machining centres for drilling and routing are the answer to every wood and advanced material processing problem identified after a careful analysis of market indications. **morbidelli m100** stands out for its "ALL-IN-ONE" technology: with a single machining centre the needs of both companies and artisans from a wide variety of sectors can be met. Furthermore, thanks to the latest features introduced at Ligna 2019, **morbidelli m100** has become an even more complete and configurable machine.

The design of the **morbidelli m100** allows operators loading and unloading large sized panels in safe and easy conditions. Thanks to the **PRO-SPEED** safety system, the machine can be used at

maximum feeding speed, being it automatically reduced when the operator crosses the front photocell barrier.

A considerable improvement in productivity is achieved thanks to the boring heads with **RO.AX** (Rotoaxial spindle technology) spindles which, due to the innovative structure and high rigidity, mean higher rotation speeds can be reached and can work without maintenance operations for more than 1000 working hours. The possibility of making tool changes in less than 15 seconds, thanks to the **FAST 14** system, also means our clients can save more time and increase the productivity of more complex programs.

Lastly, the good level of configurability of the machining heads guarantees maximum flexibility to the machine. It is possible to host up to four work units including the **JQX** 5-axis electrospindle for an unparalleled finish.

STYLISH CONTOUR EDGEBANDING

morbidelli p200

morbidelli p200 is a machining centre with unique features, is extremely compact and offers an unrivalled performance/price ratio. It too belongs to the "ALL-IN-ONE TECHNOLOGY" morbidelli range and it continues to enhance itself with new functions.

The **most compact and reliable edge banding unit** allows for edges **as thick as 80 mm to be applied to the panels**, achieving an unrivalled quality.

The **PRO-SPEED** system means the machine can go at maximum advancement speed always guaranteeing the operator maximum safety, thanks to the photocells that cordon off the loading areas.

The **HE-POD** suction cup surface, synonymous of flexibility and innovation, bring the third dimension to the work surface. The machine, which is already equipped with the innovative FLEXMATIC worktable, can lift up the pieces to be processed and avoid unnecessary repositioning, making the most of the worktable size and reducing production cycle times by 30%. To this is added the head borings fitted with **RO.AX** spindles with greater rigidity and faster rotation speed, the 5-axis **JQX** electrospindle for an unparalleled finish and the **FAST 14** tool change that ensures a tool change in less than 15 seconds.

SUITE MAESTRO: a module for every need

All the machines are equipped with **Maestro cnc**, the CAD/CAM software designed by SCM for SCM machines and with the new HMI **Maestro active**.

More than 150 **Apps** have already been preinstalled inside Maestro cnc and are ready to use. Furthermore, the possibility of creating technologies to apply to different geometries means standard processes can be created to apply to several programs, making projects easier to make.

The 2019 version, introduces several new features on Maestro cnc and its modules: the **Pro View** simulator has been completely renewed, **Maestro 3d** and **Maestro 3d advanced** are implemented with further functions and the **Maestro Nesting** optimiser has been further enhanced.