

## Great success for the latest SCM innovations at Xylexpo

***Standalone technological solutions and integrated, intelligent and sustainable processes. So much that's new at the SCM stand to meet any production requirement. Two XIA – Xylexpo Innovation Awards were granted to SCM's Digital Factory and Blade Off, the predictive safety system for circular saws.***

*Milano-Rho Trade Fair* - SCM was once again a key player at Xylexpo, on a special occasion for the Italian Group, as it celebrates **70 years** of innovation and success by the side of the entire woodworking sector.

At its innovative and multimedia stand of over 2,000 m<sup>2</sup>, SCM recorded a huge turnout of professionals, experts and schools specialising in woodworking as well as great opportunities in terms of orders, negotiations and contacts.

SCM offered its vision for a **digital, connected and integrated production**: a Digital Factory model that was also awarded at Xylexpo Innovation Awards. It supports the customer with the most complex challenges of *mass customisation*, making the processes faster and more sustainable, keeping down costs, consumption and waste and simplifying management. A system of **Smart&Human Factory** flexible, automated and modular cells that was on offer for the first time in **two distinct versions for industry and the joinery**.

Flanking both the processes is a rich integrated offering of software, MES and digital services on display in the “**Digital Integrated Woodworking Process**” area. Software and services that support the customer at each stage: data preparation, planning, production, monitoring and after-sales assistance, by increasing efficiency and connecting the office and factory.

Worth pointing out was the updated CAD/CAM office programming software for the preparation of data for **Maestro cnc** machining centres and the 3D **Maestro pro view** simulator for machining panels and solid wood, as well as the **Maestro beam&wall** for timber construction.

For planning, optimisation and production control, the new MES **Maestro easyFlow** is the plug&play solution integrated with all of SCM's software and machines, combined with both Smart&Human Factory for both industry and the joinery to handle the programming, management and 4.0 interconnection of the entire production flow.

New entries also with the cutting optimisers. **Maestro optiwise** for the **gabbiani** single blade and angular beam saws ensures you get the best out of cuts with a minimum amount of waste for both large and small production batches. Furthermore, it offers the best solution in terms of waste, time and costs and a *user experience* that is even simpler and more efficient.

Maximum performance even for woodworking with the mobile app **SCM Thundercut**: this optimiser-sequencer is the only one that provides the operator with a step-by-step guide to inserting the panel into the machine and making the cut; for a completely safe job even when done by those less expert.

**Maestro Power TMS**, the software that simplifies and optimises the management of tools inside the solid wood CNC machining centres' warehouses also made its debut at Xylexpo. Depending on the kind of machining required, the software operates to maximise the capacity of the warehouses and to speed up the tool change according to the production mix: more than 100 tools readily available, a reduction in times and an increase in productivity.

The HMI software and **Maestro active** line supervisors have also been updated for an even simpler, optimal control and interaction with all the SCM machines.

In support of the production **monitoring** stages, machine **maintenance** and after-sales **services**, the **digital services** enabled by the IoT **Maestro connect** platform have been further enhanced. The aim is to guarantee maximum return on the machines and plants in conjunction with the

constant support from SCM technicians. This IoT platform, nowadays, integrates into the "Woodworking made Izy" project led by the most important machinery manufacturers to offer a common language and a total integration of the customer's machines.

### **The Smart&Human Factory for the furniture industry**

The flexible integrated line on offer at Xylexpo produces around **400 furniture parts per shift** and shows two alternative flows for the **manufacturers of assembled or kit furniture**.

This is only one of the many configurations that the Smart&Human Factory can assume based on specific client demands. The cells are integrated with articulated robots and interconnected by unmanned AMR shuttles.

Making its mark in the **beam saw** area was the new flexible **gabbiani gt2 cell with articulated robot** for automatic loading and unloading. It optimises the shifts and combines 'batch 1' machining requirements with large volume production. The cell, enhanced by the new **Maestro optiwise** optimiser, has been designed for use with or without an operator, permitting the immediate and automatic passage between one mode and another. In automatic mode with robot, it allows you to operate without shift restrictions, relieving the operator of work that is of a low added value. In manual mode, it allows for even the finest, most delicate and smallest materials to be handled extremely easily.

In the **edgebanding** area, SCM offered a new model of **stefani cell E** flexible cell that combines the numerous advantages of the **stefani x** industrial edgebander in terms of productivity and machining quality with the new **Fastback 27** automatic panel return system. Thanks to this device, moving panels loaded onto the edgebander is controlled automatically and flexibly, both long-ways and crossways. This ensures the operator receives maximum support in controlling the entire edgebanding cycle.

The cell, integrated by **Maestro active edge** HMI software for a simple, intuitive control, is designed for an intensive use over several shifts, with a speed of **25 metres per minute**. It guarantees an ideal application of the edge without the use of glue, thanks to **AirFusion+** technology, and outstanding machining quality even on the most delicate, state-of-the-art materials thanks to electronic controls.

Completely new entry was the **morbidelli cx220 drilling and dowelling flexible cell** that creates all the parts of the piece of furniture more efficiently, even with pieces that differ dramatically from one another. The new cell produces **a panel per minute and in excess of 400 panels per shift** with a single operator in just 50 m<sup>2</sup>. Its exclusive layout allows for two possible uses: without operator supervision, thanks to the integrated robot on the rear side that performs all the loading and unloading operations in complete autonomy for a continuous production cycle; with partial supervision of the operator who, in complete safety, can load and unload the panels at the front of the cell while the robot continues to machine on the opposite side.

The process on display at Xylexpo continued into the **assembly** area with the **action p** clamp, whose automatic setting means all the parts of the furniture can be assembled with precision and simplicity. It is rounded off with packaging and the new range of **cut c 200** punching machines for the production of 4 made-to-measure boxes per minute and **pack c100** for the automatic closure of the pre-punched cardboard box lids using hot-melt glue.

### **Smart&Human Factory for the joinery**

Also taking centre stage at Xylexpo was an integrated cell for flexible and customised production from raw material to the finished piece of furniture. As well as **MES Maestro easyFlow**, the first step towards the ideal office-factory integration, the cell acquires a further advantage from the positive aspects of the machines involved:

- The **invincible si x** circular saw enhanced by the SCM Thundercut cutting optimiser-sequencer;

- **Startech cn plus** CNC drilling centre, to easily and flexibly produce furniture parts without repositioning the tools and without a need for the operator to intervene;
- Top performing **me 40tr** edgebander thanks to the new rounding unit that allows you to achieve excellent quality finished products, without further machining.

Three machines for a perfect and unique "orchestrated" work that dramatically reduces times and margins of error.

## OTHER NEW ENTRIES IN THE SPOTLIGHT

SCM boasts the largest range in the industry and exhibited at Xylexpo standalone solutions and integrated processes **for every kind of production need**.

### Edge banding

The new **olimpic 500** offers excellent machining versatility in a limited amount of space and always with high quality standards. The edgebander has a 2 motors rounding unit and a new control system for even more efficient production. Some of the other advantages include the option to machine 2 real radii with all the units, panels up to 60 mm in width, perform a simple and automatic glue change with the SGP-E pot and an even more user-friendly usage with HMI Maestro active edge software and the new 15" eye-S console.

**Stefani sbx** also took centre stage live from the SCM Technology Center in Thiene. The new squaring-edgebanding machine offers the most advanced SCM technological innovations for this sector: these include Servo electronic units and other solutions for high productivity levels and excellent performance with every machining.

### SCM Surface Technologies

The integrated offer of **dmc** technologies for sanding, **sergiani 3d form** for ennobling three-dimensional panels and **superfici** for finishing has been further enhanced with new devices and models to satisfy all process and end-product type requirements and achieve sophisticated finishing solutions.

This is the case of the different new entries on display for **sanding** that not only permit original, high-quality applications but increase productivity and efficiency and make them much easier to use by improving the *user experience*.

The **dmc system t2**, a flexible and modular numeric control calibrating/sanding centre appears in a completely new light: the innovative **laser unit**, making its global début at Xylexpo, is particularly well-suited for the wooden floor super finish, solid wood parts and mdf panels decorating and fibre cement finishes.

Also highlighted was the new planetary unit of the **dmc eurosystem** designed to perform every calibrating, sanding, brushing and structuring operation possible.

Last but not least, the new "**eye-S**" control panel for **dmc sd** and **dmc euro system** sanders which, thanks to the HMI **Maestro active sand**, further enhances the machines' performances and offers an even more advanced *look&feel*.

Among the new entries for **finishing**, we had the **superfici compact xl** sprayer for high production capacity, offering a considerable energy saving, a more efficient paint recovery system and an advanced recirculation of air volume, as well as a completely new design.

Also on display was a **UV led polymerisation system** with several UV monochromatic sources of different wavelengths to achieve a controlled multi-chromatic emission in a wider spectrum compared to the pure UV led radiation. The result is chemical-physical performances fully comparable with standard UV polymerisation, while maintaining the typical advantages offered by led.

For extra-opaque effects on the finish of the most varied end products and materials, another new entry was the **Superfici excimatt**: excimer technology offering surprisingly smooth effects with high levels of opacity but with no more compromising on surface resistance.

### **Doors and windows production and solid wood machining**

For the first time ever at Xylexpo was the **accord 600** CNC machining centre for the production of **doors, staircases and windows in solid wood**: it offers 30% more productivity compared to market standards and an intelligent management with **Maestro power TMS**, the software that simplifies and optimises tool handling in the machine's magazines.

The spotlight at Xylexpo was also shining on **windorflex**, the new automatic cell for machining complete fixtures designed to optimise productivity while simultaneously maintaining a high level of flexibility and machining quality, irrespective of the kind of window or door.

The solutions for solid wood were rounded off with the automatic **superset nt** throughfeed moulder complete with high-efficiency motors that guarantee a considerable benefit in terms of energy saving; the **balestrini idea** CNC machining centre for chairs and tables and the automatic **balestrini pico md** tenoner-mortiser, ideal for creating "Miter Door" joints.

### **Joinery machines**

Making its début at Xylexpo was the **startech cn k** compact 3-axis machining centre, ideal for any kind of routing, decorations, scoring, creation of signs and 3D model prototype. The only one in its category to have a 2.4 kW electro-spindle, the machine, with integral cabin, guarantees protection to the operator and a clean working environment; it is also very easy to program thanks to the virtual "open" Human-Machine Interface for the importing of G-code from any kind of CAD/CAM software.

Also being highlighted were the new **eye-S compact** touch controls on edgebanders and the exclusive "**Blade Off**" technological solution (**XIA winner**) applied to circular saws and fitted with exclusive **smart sensors** to machine in complete safety.

### **Timber construction**

SCM expands its solutions for the industry. The new **area x** 5-axis CNC machining centre with mobile gantry structure, is designed for manufacturers of X-lam/CLT panels and curved laminate beams. Excellent reliability and very high machining quality allow non-productive times to be eradicated and produce finished parts ready to be assembled on site.

Also on show was the new 3.0 version of the **Maestro beam&wall** proprietary software designed to provide a better response to the demands for workflow optimisation and greater production flexibility in machining structural parts.

And for X-lam/CLT wall panel sanding comes a new project, the **dmc system xl: highly modular sanding-calibrating machine** capable of working walls up to 3,700 mm wide and 500 mm thick.

### **Squaring, tenoning and profiling**

For visitors to Xylexpo, a closer look at the latest **celaschi** products. In particular, for the production of both traditional and gradient board (chevron) wooden floors, the new **celaschi tmc** transversal **tenoner with automatic loading system**. Versatile and precise, it offers the utmost in terms of technical solutions for line profiling of boards with different gradients.

The **celaschi** innovations also referred to the creation of **Threespine®** click panels and the production of **drawers**, with the option of machining pieces of less than 60 mm in width.

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**Scm Group** is a global leader in technologies for machining a wide range of materials and industrial components. The companies in the group are, throughout the world, highly reliable partners for the leading industries in a wide range of product sectors, from furniture to construction, automotive to aerospace, and yachting to plastic processing.

Scm Group coordinates, supports and develops a system of industrial excellence in 3 large highly specialised production centres in Italy, with a turnover in excess of 750 million Euro, with 4,000 employees and a direct presence in all 5 continents.

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