



SCM and Randek present the latest solutions for large format building components at the International Mass Timber Conference

Together the two leading producers offer the largest range of technologies for glulam structural beams, columns, CLT wall and floor elements, as well as prefabricated walls, roofs and trusses. They will present the latest solutions designed to satisfy the current requirements for mass timber construction.

Portland, Oregon – March 26-28, 2024

The **8th annual International Mass Timber Conference** is coming up and SCM and Randek are ready to join all the innovators, disruptors and forward-thinkers who want to promote a greater use of cross-laminated timber and other mass timber products in the sector.

SCM, a global leader in advanced machinery for the entire woodworking and timber construction industries, and **Randek**, known throughout the world for its high-performance systems for prefabricated houses, will be among **over 130 exhibitors** participating in the event with a common mission: to explore and encourage the advantages of green building made possible with innovative, efficient and sustainable production processes and materials.

SCM and Randek will provide their contribution in terms of know-how and innovation, by illustrating cutting-edge solutions, designed in accordance with the positive trend of wooden **multi-storey buildings**, both in North America and Europe. Together, SCM and Randek offer the largest range of technologies for glulam structural beams, columns, CLT wall and floor elements, as well as prefabricated walls, roofs and trusses.

In particular, the SCM team will present its solutions best suited to these building components: the cnc machining centers **OIKOS XL** and **OIKOS XL+**, dedicated to the production of structural columns and **AREA XL**, for large format CLT panels; regarding sanding and calibrating for CLT panels, the new highly modular sanding-calibrating machine **DMC SYSTEM XL**.

Mass Timber Conference attendees will also get a chance to see the **Area XL** in person during one of the organized building tours, specifically the **Western Oregon Tour 3#**, which will visit **Freres Engineered Wood**, our customer that specializes in Mass Ply panel production.

TECHNOLOGY HIGHLIGHTS

OIKOS XL and OIKOS XL+ for eco-sustainable challenges

OIKOS XL is the “extra-large” innovative, 6-axis CNC machining center designed to produce large-sized **glulam beams and columns with a maximum cross-section of 1250x500 mm**.

One of its main advantages, appreciated by leading companies in North America, is the automatic management and processing of heavy elements using the sturdy mechanical structure and reliable locking and handling systems. This unique feature is a part of the 6-axis technology, which allows machining on all six faces of the element with all tools available and with no rotation or repositioning required. The machining accuracy and special anti-scraping devices create power and flexibility that produce a perfect quality of the finished elements.

OIKOS XL+ is the new CNC machining center for the production of **columns and structural beams with a max. cross-section of 1250x610 mm**. This solution has inherited all characteristics of OIKOS XL, amplifying all its advantages, thanks to the implementation of **a second independent machining unit with a 1150 mm diameter saw blade**.

In line with the increased expansion of multi-storey wooden buildings globally, OIKOS XL+ is designed to overcome even the most complex challenges. The robust and adequately sized structure of the machine means **very heavy elements of up to 4 tons can be processed**, as well as very hard materials.

Productivity and precision are other primary requirements that are the basis of this model. The second 5-axis saw blade unit allows **a blade radius of an impressive 400 mm**. Furthermore, the use of a saw blade rather than a chainsaw aggregate means to work faster and achieve a better quality.

Another advantage is the ability to execute **cuts from bars with a maximum thickness of 610 mm**. Decisive is the machining strategy behind the OIKOS XL+, which combines the second saw blade unit with the main machining unit that has a 740 mm diameter saw blade.

AREA XL: state of the art technology for large format CLT panels

Area XL is the 5-axis CNC machining center for the industrial production of **large format CLT panels**. This solution, which represents an evolution of the renowned AREA model, is developed to meet the requirements of companies looking for high productivity, accuracy and reliability.

The processing of large format CLT panels is characterized by heavy duty stock removal, process automation, as well as maximum cleaning of the work area.

AREA XL is designed taking into consideration these specific requirements. With this machining center, size and thickness of the CLT panels are no longer a problem. **Elements up to 16,000x3,600x400 mm can be processed, thanks to a high-power operating unit: 63 kW in continuous service**. The overall productivity can further be increased by adding **a second operating unit, to perform specific operations in parallel with the first one**. Another plus of the machine is the possibility to perform **crosswise throughfeed-drilling even on the maximum panel size** with optional auxiliary units. Moreover, AREA XL offers up to 60 tool stations, including two sawblades for each operating unit. The operator's work is made even easier, thanks to the automatic workpiece handling and positioning systems and innovative cleaning systems. And last but not least, AREA XL also allows to work in total safety, thanks to the full enclosure and a protected access system to the work area through laser barriers.

New HMI Maestro active beam&wall for quick and easy all-round control

Further enhancing OIKOS XL, OIKOS XL+, AREA XL and all the other SCM cnc machining centers for timber construction **Maestro active beam&wall** is the new human-machine interface software, which offers numerous functions in a simple and fast way.

The **new version of the HMI software** is characterised by **a totally renewed graphic interface** aligned with that of the latest generation of software. Maestro active beam&wall is based on Maestro active, the HMI software adopted by the entire SCM Group for complete job order management.

Last but not least, the presence of the new **eye-M top plus** operator console compatible with all models in the Area and Oikos ranges. On the same console, upon request, the Maestro beam&wall programming software can also be installed, closely connected to the HMI software. The possibility of using Maestro beam&wall **both on a PC in the office and on the operator console, i.e. directly on the machine even for the programming phase**, is an important advantage for companies that reckon on flexibility of use to increase their productivity.

DMC SYSTEM XL: built bigger to work harder

The SCM project with **DMC SYSTEM XL**, automatic sanding-calibrating specifically designed for timber construction industry, continue with new units in addition to those already available (roller, pad and crossbelt units) to further enrich the machine by enabling **to process both top and bottom face** of CLT panels up to 3.700 mm wide and 500 mm thick.

These new modules (**bottom roller unit, top/bottom pad unit and "piggyback" crossbelt unit**) can be **fully combined and integrated with each other** according to the customer's production

requirements, by offering high **configuration versatility** (a distinctive plus of DMC SYSTEM XL) and unification of components and common parts **to optimize operating costs**.

The solid steel structure is designed to last and withstand the most intense machining, by granting zero-vibration. Furthermore, the automatic sanding-calibrating machine is developed to **make the operator's maintenance work easier, faster and always safer**.

Energy saving is a key issue: the machine is specifically engineered with an optimized design and technological solution **for minimum compressed air consumption**.

This solution, as well as all SCM sanding features, is aimed at **improving the surface finishing** and increasing the value of the finished product. By doing so, customers can reflect the latest market trends in having visible CLT walls and an end-product that is as natural as possible (without resorting to additional surface treatments).

RANDEK: OFFSITE IN TIMBER FRAME CONSTRUCTION, MORE EFFICIENT THAN EVER

Randek is a trailblazer in the development of cutting-edge automation solutions since the 1940s. Working with customers in the manufacturing of prefabricated buildings, our expertise lies in crafting high-performance off-site machinery for the swift production of walls, floors, ceilings, and roof trusses efficiently and cost-effectively.

ZeroLabor Robotic system for highly-efficient production of wall elements. The system is compact and can be configured and integrated into production lines. CAD/ CAM controlled. **AutoWall** Advanced system for production of open or closed wall elements. Top-level automation with record capacity. CAD/CAM controlled.

AutoFloor An advanced system to produce floor elements, floor cassettes, roof ceilings, and roof elements. CAD/CAM controlled.

AutoEye Truss System is developed for automatic production of roof trusses. The system combines high capacity with industrialized quality. Automatically picks, places, positions, and presses the nail plates onto the roof truss. Possible to produce various truss sizes and shapes. CAD/CAM controlled.

Scm Group is a global leader in technologies for machining a wide range of materials and industrial components. Across the globe, the group's companies act as highly reliable partners to leading industries in a wide range of production sectors, from furniture to construction, automotive to aerospace, and marine to plastic machining.

Scm Group coordinates, supports and develops a system of industrial excellence in 3 large highly specialized production centers in Italy, with a turnover of 900 million Euro, with about 4,000 employees and a direct presence in all 5 continents.

Randek is innovative pioneers in developing and manufacturing high-performance machines and systems for prefabricated house manufacturing. Cutting-edge tech with roots that run deep, geared towards tomorrow's needs in-sync with the burgeoning Off-site scene. Randek leads the way in the innovation of production lines ranging from light automation to Robotic ZeroLabor System. The production lines for prefabricated house manufacturing are not just the most automated in the world but are also the most flexible. Trusted by leading house producers in over 40 countries and continuously expanding, Randek is synonymous with efficiency and innovation in timber frame construction.

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