



Great solutions for large format constructions: SCM and Randek at the International Mass Timber Conference

Together the two leading manufacturers 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 (Oregon Convention Center) - March 25-27, 2025

Stand SCM: Hall A - booth 323

The **9th 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 mass timber in the sector.

SCM, a global leader in advanced machinery for the entire woodworking industry and timber construction market, and **Randek**, known throughout the world for its high-performance systems for prefabricated houses, will be among **over 190 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.

The SCM team will present its innovations best suited to these building components, starting from the two latest technologies to be provided to **Timberlab**, a prominent U.S. company specializing in sustainable timber solutions: an **Area XL**, 5-axis CNC machining centre with a mobile gantry structure and pendulum processing, developed specifically for the industrial production of large format CLT panels (up to 60'x11.5'), and **Celaschi XL**, new double-end profiling machine that ensures the processing of CLT panels over 60' long, at an average rate of 1 every 15 minutes.

The spotlight will also be on the cnc machining center **Oikos XL+** dedicated to the production of columns and structural beams and the highly modular sanding-calibrating machine **Dmc system XL** for improving the surface finishing of CLT elements.

TECHNOLOGY HIGHLIGHTS

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 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 machine, 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/positioning systems and innovative cleaning systems. And finally, 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.

OIKOS XL+ for great eco-sustainable challenges

Oikos XL+ is the new CNC machining center to produce **columns and structural beams with a max. cross-section of 1,250x610 mm.** This solution has inherited all characteristics of Oikos XL, a machining centre chosen by leading companies in North America, amplifying all its advantages, thanks to the implementation of **a second independent machining unit with a 1,150 mm diameter saw blade.**

In line with the increased expansion of multi-storey wooden buildings globally, Oikos XL+ has been 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.

Flexibility is another key point, in fact any operation on any side of the workpiece can be performed with no need for repositioning, thanks to the innovative 6-axis architecture of the main machining unit. Productivity and precision are the other primary requirements that are the basis of this model. The second 5-axis saw blade unit allows the use of a saw blade rather than a chainsaw aggregate, in order to work faster and achieve 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.

2025 SCM's innovations for timber construction include a CELASCHI double-end profiling machine and new models of OIKOS CNC machining centers.

CELASCHI XL is the new double-end profiling machine for clt panels designed to optimise the production flow. It allows machining operations to be redistributed from the CNC machining center to the profiling machine, guaranteeing **greater productivity and maximum precision in the rebating and squaring operations on CLT walls.** Quality, reliability and high performance make Celaschi XL a strategic investment for the timber construction industry.

OIKOS XS 650 is the latest addition to the Oikos range, of which it retains all the advantages and improves performance, offering **greater productivity and flexibility** when processing solid wood and glulam beams with a cross-section **up to 650x310 mm.** The ideal solution to produce **roofs, trusses, prefabricated walls and blockhouses.**

OIKOS X4 is the new 6-axis CNC machining center, which enables **rapid and precise processing of camber beams, with a cross-section max. 1250x300 mm.** It expands the Oikos

range, introducing a new approach to the production of both camber and straight beams. The slight longitudinal curvature of the beam, almost imperceptible to the naked eye, allows for the creation of a straight beam under load, resulting in **material savings of up to 10%** in industrial applications.

“Maestro lab beam&wall” the new SCM’s programming software for OIKOS and AREA CNC machining centres

Further enhancing Oikos XL+, Area XL and all the other SCM CNC machining centers for timber construction, **Maestro lab beam&wall** is the updated programming software developed internally on the new SCM **Maestro lab CAD/CAM** software. It enhances the software functionalities to the advantage of the machine performance and the operator's user experience.

Maestro lab beam&wall software can be installed, closely connected to the **HMI software Maestro active beam&wall**. The possibility of using Maestro lab 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. Finally, OIKOS and AREA CNC machining centers are equipped with the new **IoT platform Maestro connect**, an application for monitoring the performance and productivity of connected machines.

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 at the machine outfeed**) 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 long 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 easy, fast and always safer**.

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

Even this solution, as well as all SCM sanding technological offer, is aimed at **improving the surface finishing** and increase the value of the finished product. Reflecting the latest market trends in having visible CLT walls and a product that is as natural as possible (without resorting to additional surface treatments).

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

Since the 1940s, Randek has been a pioneer in developing advanced automation solutions for the prefabricated building industry. With decades of expertise, we specialize in high-performance off-site machinery designed for the efficient and cost-effective production of walls, floors, ceilings, and roof trusses—helping our customers streamline manufacturing and maximize productivity.

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.

Press contacts:

SCM North America:

Abigail Wachtel - abigail.wachtel@scmgroup.com
Tel.: 770-366-3738

Randek:

Lisa Lindencrona - Lisa.Lindencrona@randek.com
Tel. +46 346 55778