

The latest SCM Innovations in Timber Construction at next Forum Holzbau Events in Oslo and Gürzenich Köln

SCM will showcase its state-of-the-art technologies for manufacturing wooden structural elements and offer a diverse range of solutions for CLT panel processing.

*Forum Wood Building Nordic (WBN) Oslo, Norway 3-4 October
Europäischer Holzbau Kongress (EBH) Gürzenich Köln, Germany 16-17 October
Internationales Holzbau-Forum (IHF) Innsbruck, Austria 4-6 December*

Anticipation is building for the upcoming stages of Forum Holzbau, the premier global initiative dedicated to timber construction. SCM is excited to once again connect with key industry players, contributing its technological innovations and expertise.

On October 3-4, the exhibition will arrive in **Oslo (Norway)** for the 13th edition of **Forum Wood Building Nordic**. Leveraging the success achieved in previous Forums held across Europe this year, the Italian Group will join a wide range of supply chain leaders - planners, designers, builders, and machinery suppliers - to share its vision for the future of green building and to map out strategies for market development.

In Oslo, as well as at the **Europäischer Holzbau Kongress (EBH) in Gürzenich Köln (Germany)**, SCM will showcase its innovative solutions for timber construction: the **OIKOS XS**, a CNC machining centre for straight beams, prefabricated walls, trusses, roofs, and blockhouses; the new **OIKOS XL+**, at the other end of the OIKOS range, for producing large-format structural beams and columns; and the extensive SCM range of solutions for CLT panel processing, including the **AREA** CNC machining centres and the highly modular **DMC SYSTEM XL** calibrating-sanding machines.

And that's not all - SCM team is already working on next-generation innovations that will be unveiled as world premieres at the final Forum of the year in Innsbruck (Austria) from December 4-6.

OIKOS XS: speed of execution and high configurability

OIKOS XS is the most versatile model in the OIKOS range, cnc machining centre for timber construction ideal for companies looking for high speed and precision combined with a small footprint and low cost.

It is suitable for the production of **straight beams, prefabricated walls, trusses, roofs and blockhouses**, i.e. structural elements requiring both very fast operations such as cutting, and more complex operations such as drilling, routing, dovetails and slots for hardware, on work-pieces that can have a **maximum length of 16 m, a maximum width of 450 mm and a maximum thickness of 240 mm**.

The **speed of execution** is one of the main advantages, because the work-piece feed rates can increase **up to 3 m/sec**. Furthermore, **combined movements of the operating units** cut down unproductive time due to axis repositioning.

OIKOS XS enables the **coverage of the work-piece 6 faces**. Several operating units strategically positioned within the work area, resulting in a high degree of configurability to meet every specific

customer need. Another plus is the **innovative 4+1 axes revolver unit with differentiated speeds for each tool** which allows for a unique finish.

The machine also stands out for its **machining precision**, which is achieved by extremely stiff clamping system for work-piece feed, horizontal and vertical pressure rollers located close to the work area, a dynamic work-piece support system active during processing and a laser probe to realize precise dovetails.

OIKOS XL+ for great eco-sustainable challenges

OIKOS XL+ is the new CNC machining centre for the production of **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 both in Europe and 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 work-piece can be performed with no need of repositioning, thanks to the innovative 6-axis architecture of the main machining unit. 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 range: high efficiency for CLT panels and curved glulam beams

Three 5-axis cnc machining centres, specific for CLT panels and curved glulam beams processing. AREA, AREA X and AREA XL have a mobile gantry structure, protected by a full safety enclosure, and a modular composition that ensures high efficiency in the production of large format elements that are also used in the construction of public buildings and facilities such as sports centres and bridges.

AREA is ideal for processing construction elements **up to 4.5 m wide and up to 50 m long**.

AREA X can process CLT and panels of other materials **up to 3,600 mm wide and 360 mm thick, while the length can be up to 36 m**. The **PRO worktable** is the main feature of this model. The high level of configurability is provided by the availability of five different bases (from 16,000 to 36,000 mm) that can be equipped with automatic systems for work-piece referencing and clamping, together with innovative systems for cleaning the work area.

AREA XL is the giant of the range, specifically designed for the industrial production of large format panels and CLT elements **up to 3,600x400 mm**, thanks to a powerful and high-performance machining head unit - 63 kW in continuous operation - that allows heavy duty stock removal with extreme ease, even using very heavy tools.

High productivity rates can be achieved by equipping the machine with a **second machining head unit**, capable of executing several operations simultaneously. Besides, the integration into automated CLT panels production systems is possible by means of a special roller worktable. A wide choice of tools and aggregates, **up to 60 tool stations in total**, allows to carry out any type of project by choosing the right configuration. Optional auxiliary units allow transversal throughfeed-drilling even on the maximum panel size.

Moreover, increased efficiency and reliability are guaranteed by **work-piece handling and referencing systems** and **innovative cleaning systems**.

All SCM cnc machining centres for timber construction are equipped with **Maestro beam&wall**, the proprietary software compatible with the most popular design CADs in the industry.

Programming freedom is guaranteed, as Maestro beam&wall allows programming both in the office using a PC and directly on the machine from the upgraded **eye-M top plus** operator console, complete with **Maestro active beam&wall**, the new human-machine interface offering a simple, intuitive control and an optimisation of the production flow.

DMC SYSTEM XL: built bigger to work harder

The SCM project with **DMC SYSTEM XL**, automatic calibrating-sanding 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 very 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 conceived to last long and withstand the most intense machining, by granting zero-vibration. Furthermore, the automatic sanding-calibrating machine has been developed to **make the operator's maintenance work easy, fast and always safe**.

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).

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 specialised production centres in Italy, with a turnover of 900 million Euro, with about 4,000 employees and a direct presence in all 5 continents.

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