

S C M G R O U P N E W S



STREAMING INNOVATION

scm  **group**

The specialists in the wood industry

THE SPECIALISTS IN THE WOOD INDUSTRY

Scm Group **has been designing, building and distributing technologies for the woodworking industry since 1952**, from the furniture to the nautical sector from the building industry to door and window frames.

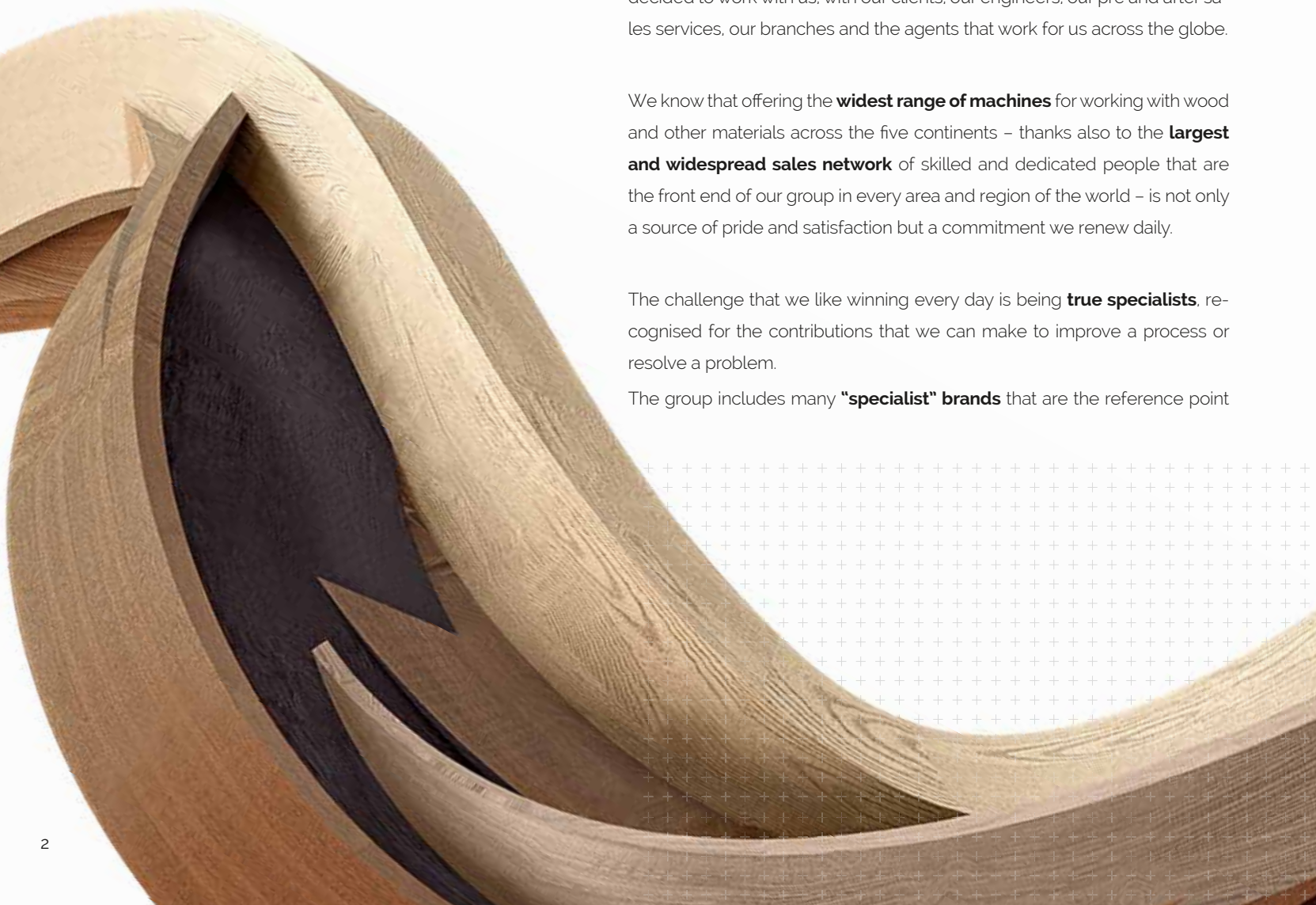
For over sixty years we have been in partnership with companies across the world, from large industrial giants to the smallest craftsman. Stories, people, situations and skills that have allowed us to become what we are today: **specialists in the wood industry!**

This is our passion: building good machines and intelligent technologies. We achieve this with a **daily exchange of information** with the people that have decided to work with us, with our clients, our engineers, our pre and after sales services, our branches and the agents that work for us across the globe.

We know that offering the **widest range of machines** for working with wood and other materials across the five continents – thanks also to the **largest and widespread sales network** of skilled and dedicated people that are the front end of our group in every area and region of the world – is not only a source of pride and satisfaction but a commitment we renew daily.

The challenge that we like winning every day is being **true specialists**, recognised for the contributions that we can make to improve a process or resolve a problem.

The group includes many **"specialist" brands** that are the reference point



for every wood working process: Gabbiani, Stefani, Morbidelli, Routh, SCM, Celaschi, Dmc, Superfici, Sergiani, Mahros, CPC and Minimax. Each one of them highly specialised in their field and capable of resolving specific situations, with people that know and express all their knowledge and skills.

The heart of Scm Group, our history and our future.

Streaming Innovation

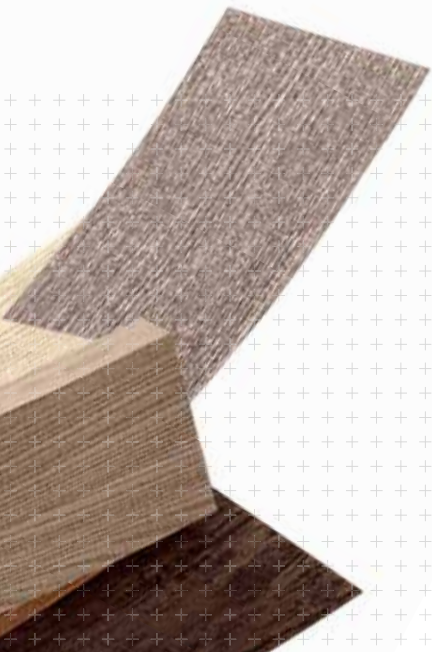
An uninterrupted and ambitious flow of new ideas, skills and technologies.

This is a special edition of our News Magazine. 2015 will see the Ligna trade fair in Hannover, **the opening of new branches of the group around the world and the launch of important technological developments.**

Streaming Innovation is the name of the campaign for all these events and the title of the installation by **London's BloomLab made with SCM's numerical control technologies by Naldini Arredamenti** that will represent the group at the Ligna trade fair.

Ten chapters crammed with in-depth articles on the **solutions that are at the heart of the Group's technological development, meetings with our clients all over the world** and a **special software section**. You will also find pages on our many projects, from the **LIGA laboratory in Russia used for state of the art finishing tests**, to the **WorldSkills competition in Brazil** sponsored by Minimax and SCM Tecmatic and the interesting **partnership with Luciano Molinari, a cabinet maker that marries the creativity and knowhow of the craftsman with the potentials of classic machines** to create veritable icons which reflect the passion of a craftsman working with wood.

Streaming Innovation. Happy reading.



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LIGNA 2015: SMART MANUFACTURING

**INTERVIEW WITH
Federico Ratti**

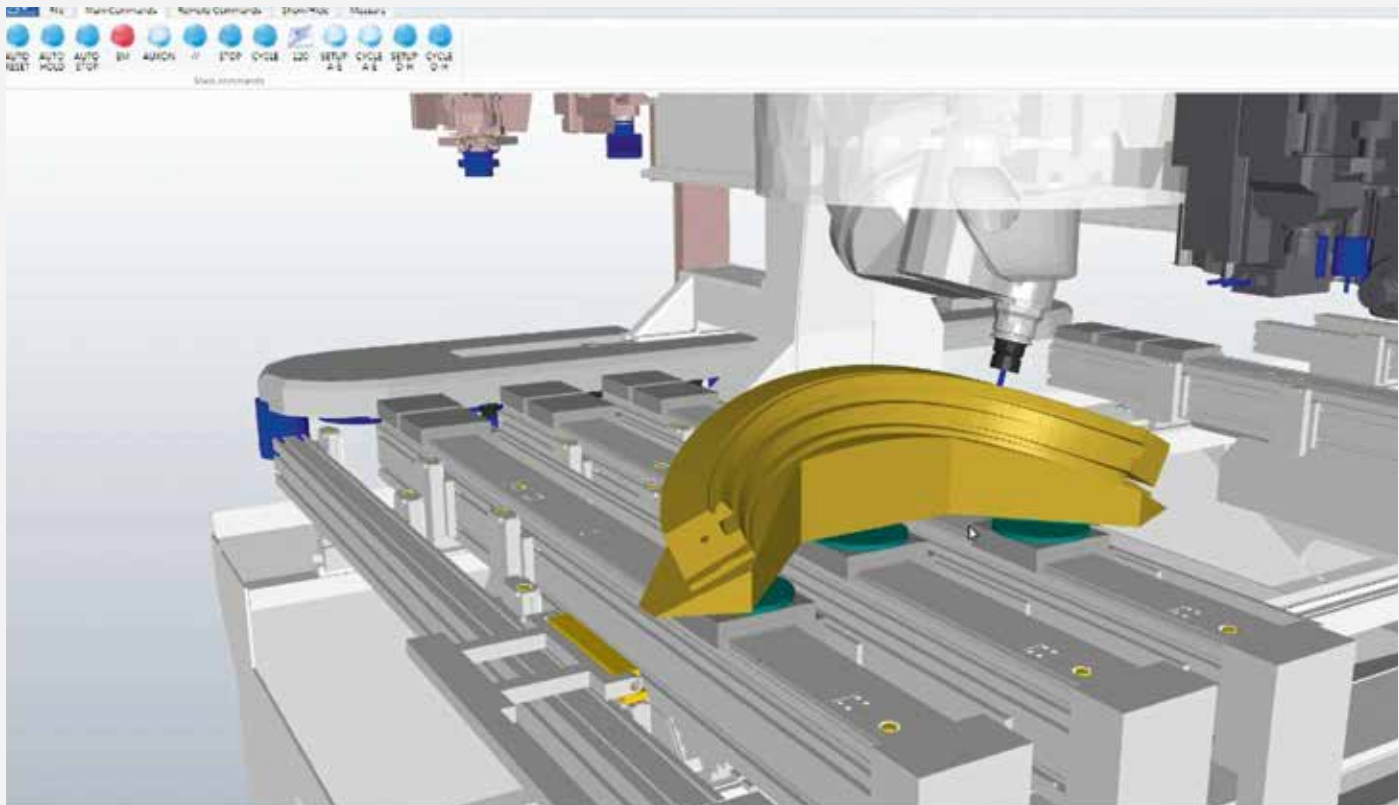
Scm Group's Technical Director

Scm Group will have over sixty machines and two different machining cell systems on show at Ligna 2015, to demonstrate the group's ability to bring intelligent innovation to panel sizing, edge banding, and boring and routing. There will be many new developments on show, as well as the first steps towards the machines of the future!



“The common thread of our presence at Ligna 2015 will be an evolved and integrated system of machining cells. We will have two furniture solutions for specific levels of productivity, flexibility and automation, in which we have concentrated many of Scm Group's new developments”, **Federico Ratti**, Scm Group's Technical Director tells us.

“For the medium to high productivity sector we have the flexible batch “one” panel sizing cell, complete with Mahros' integrated Flexstore EL automatic magazine. This is an automatic plant managed by the new Watch Store software, that can **perform any type of cut in real time**. Then there is the batch “one” edge banding cell, on which Scm Group has focused a lot of its development. In Hannover Stefani will present the results of the re-development carried out on all the units used on an edge banding machine. And finally the extremely versatile and faultless batch “one” boring cell.



For lower productivity levels we will have the flexible cells system, with three individual machines (a work centre for nesting cuts with loading and unloading assistance, a boring machine and an edge banding machine) that can easily be integrated and reconfigured as needed.

EDGE BANDING It seems that edge banding will be one of Scm Group's strong suits at Ligna 2015.

“That’s right. As materials change and production requirements change, edge banding cannot remain still. At Ligna we will unveil the first results of a complete overhaul of our range of machines that feature new solutions for improved glue management, new corner rounding units capable of quickly and automatically compensating for the presence of protective films on panels being machined or for changes in thickness; track feelers that allow tools

to operate more delicately or that can recognise the presence of hollow routing to position hardware and guarantee absolutely perfect edge banding. Without forgetting the new end trimming fast though the use of linear motors that share the same operating principle as magnetic levitation trains”.

“And there will be another new development – Ratti explains. – Our first four hot air edge banding machines. Stefani is currently working on developing this new technology to shortly achieve a considerably more evolved version than the ones currently available in the sector”.

The door and window frame sector will be able to see the state of the art technology available today with the **Accord WD** cell for machining parts of doors and windows of any size or dimension. This solution will be presented at Ligna 2015 with an advanced workpiece hold-

down system and various new solutions that allow for a considerable increase in performances.

Routech’s Oikos work centre with six interpolating axes will make its debut at Ligna. The centre is the technological



pinnacle for machining structural parts in wood, roofing beams and X-Lam walls, that increasingly require machining precision married with production flexibility for a market that is constantly expanding and of great interest for the group.

FOCUS ON...

What about single machines?

“We have maintained our commitment to innovate the range of machines for small woodworking workshops, such as the new SiX circular saw by L'invincibile, that will be fitted with a system that will allow the blade to be tilted automatically up to 46 positive or negative degrees.

We are expecting great things from the debut of the new Morbidelli P800 work

centre which is just the starting point of a new router-edge bander project that will see new and important developments in upcoming months with new functions that will further automate this type of machining and increase its flexibility. Changing edges, changing softforming shapes or executing various different processes will all be made easier.

At Ligna 2015 we will also highlight the new simple and compact vertical boring machine Cyflex hp by Morbidelli. The maximum dimension of the panel has been increased (up to 1300 millimetres) and two independent machining units will provide the benefits of a 'line' solution in the ideal machine for any woodworking workshop. DMC will present new machining units on the “System”

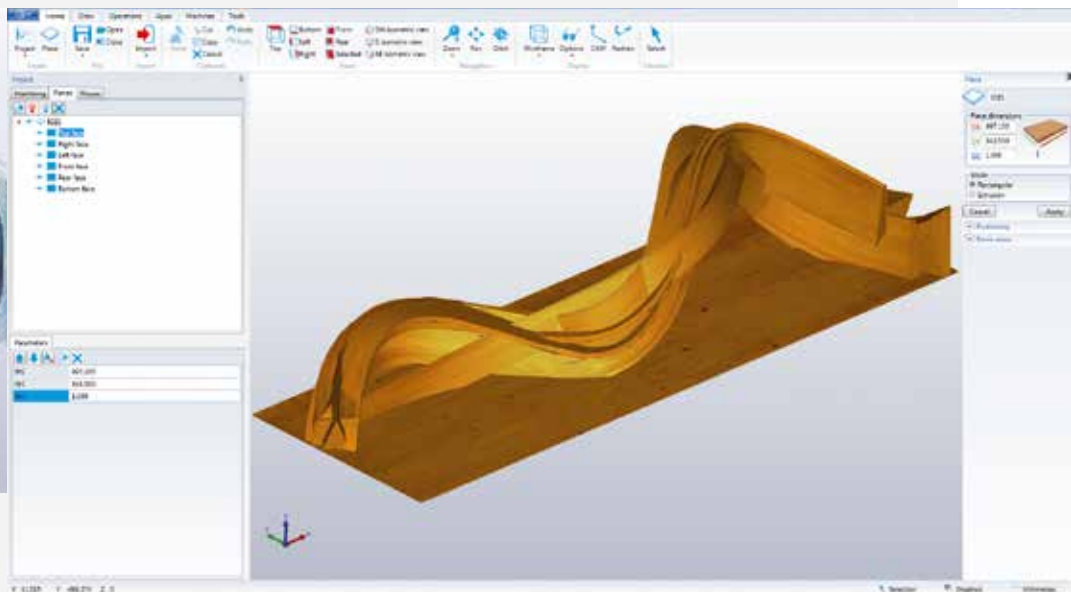
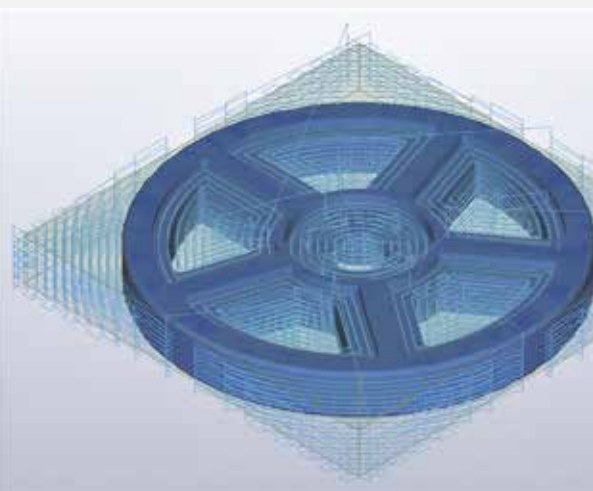
sanding range that will allow users to obtain prestigious finishing effects”.

And what about large production lines?

“We a great deal to offer in this sector. At the show we will have the **Powerflex S**, the first model of the new range of boring machines for production lines that Scm Group will present in the upcoming months. The aim is to create a new standard with high levels of performance (up to 30 panels per minute).

It is the first and smallest of the new series and will allow us to demonstrate all the reasons that make our group the reference point for high quality boring. The modular machines, designed and built based on the requirements of our





industrial clients, will share a basic configuration. The hardware architecture has been improved and their versatility and effectiveness has been increased with the integration of solutions drawn from our work centres. The processing power has also been increased to guarantee absolute performance”.

SOFTWARE What about software? It seems that you have focused a lot of resources on software recently.

“Software has been the watchword recently. The way that machines, lines and technologies think and reason is increasingly a decisive factor”.

“Our group has invested a great deal in this field. We have managed to create a particularly complete **software suite**. Its most important aspect being that it has been developed by taking into account the uses, practical experience, knowledge of the processes and the concrete requirements of those that have to use the machines every day”.

“**Xilog Maestro**”, the cad-cam interface installed on our work centres, is the heart of our system. Operators use it to draw and program the machines. We have made great progress in this area allowing us to provide our clients with a tool that allows them to draw and preview in 3D what the machine

will actually do. All the tools have been extremely simplified to ensure that it can be used by everyone and its specifications have been focused on our two core sectors: furniture, panel machining and solid wood, for the production of parts for door and window frames. Xilog Maestro is ideal for controlling **boring machines**, as well as work centres, and now includes an **edge banding** module.

All the processes are governed by the same logic, so that the users can simply tell the machine what part needs to be produced and the system will generate all the instructions necessary to produce the part.

Another new development is the “**Ot-timo Cut**” software, based on a revolutionary algorithm developed in collaboration with the maths department of a leading university, to optimise the panel sizing that will allow for extremely fast processing times and halve waste. Then there is “**E-Touch**”, the interface software for edge banding

processes that features an easy to use and effective interface. “**Watch**” is the new generation supervisor designed to manage every aspect of our plants. All the latest developments and features will be on show on our stand at Ligna 2015 along with a team of software specialists that will guide visitors through a veritable **software experience**.

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SMART MANUFACTURING CELLS

HIGHLY AUTOMATED CELL
SYSTEM TO PRODUCE 12-14
ROOMS/SHIFT

CELL SYSTEM TO PRODUCE
2-3 ROOMS/SHIFT

CELL SYSTEM TO PRODUCE
UP TO 40 DOORS-WINDOWS/
SHIFT

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DMC SYSTEM HAND SCRAPED
EFFECT

SCM SANDYA 900

LIGA, SUPERFICI AND DMC
LABORATORY

SUPERFICI MINI

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OUR CUSTOMERS NEUMANN

NEW MINIMAX ELITE AND ELITE
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MINIMAX AND TECMATIC BRASIL
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STEFANI HIGH QUALITY
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STEFANI NEW GENERATION
FINISHING UNITS

STEFANI EVOLUTION C

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OUR CUSTOMERS GAMADECOR

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MORBIDELLI BORING SYSTEMS

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FX



SMART MANUFACTURING CELLS

**Highly automated cell system
to manufacture furniture**

"batch one" cutting cell

Gabbiani Morbidelli Mahros

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"batch one" squaring edgebanding cell

Stefani Easy Order AZ

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"batch one" boring cell

Morbidelli Uniflex hp

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Cell system to manufacture furniture

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**Cell system to manufacture
up to 40 doors-windows/shift**

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Systems made up of integrated machines
that talk to each other and work together.
Smart, versatile, flexible micro-factories...

SMART MANUFACTURING CELLS

FURNITURE MAKERS NEED TO CONTINUOUSLY DIVERSIFY AND UPDATE THEIR PRODUCTS, INTRODUCING NEW COLLECTIONS TO STAY ON TREND IN TERMS OF DESIGNS AND CUSTOMER PREFERENCES.

The increasing focus on these phenomena, at international level, brings a radical **change** in furniture **industrial manufacturing logic: production systems become "intelligently flexible"**, that is to say, able to combine high levels of profitability/productivity, maximum customisation, high speed and extremely easy reconfiguration.

How can this challenge be met? Advanced **automation** and **integration** of **machines and systems** which can **work both in a stand-alone capacity** and **combined with one another**. **High level software** to manage the flow of information and logistics for materials being processed. Absolute **simplicity** in process governance, even for non-specialised operators. And when requirements change, adjustments are quickly made through software management, without changing the factory layout.

In view of these topics, Scm Group is introducing at Ligna three different systems of flexible and integrated cells, two dedicated to the furniture production and one to produce doors&windows.



HIGHLY AUTOMATED SYSTEM OF CELLS TO PRODUCE 12-14 ROOMS / SHIFT (KITCHENS, LIVING ROOMS, BEDROOMS)

The cell system comprises of the following technologies:

- Gabbiani "batch 1" panel sizing cell with Flexstore EL integrated automatic store.
- Stefani "batch 1" Easy Order AZ squaring - edge banding cell.
- Morbidelli "batch 1" Uniflex hp boring cell.

An advanced software provides for the cells to be perfectly integrated.



Real time cutting with the "batch 1" cell

FOR ONE-CLICK MANAGEMENT OF A GALAXY OF DIFFERENT PANELS

Ideal for furniture manufacturers working with production mixes varying by size, finish and volumes, the machining cell performs any kind of cutting with a fully automated flow, starting from the automatic store and moving on to panel sizing.

The cell consists of the new **Mahros Flexstore EL** three-axis automatic store, the **Gabbiani Galaxy 3 110** saw and the **Morbidelli Universal**

2412 machining centre, the ultimate solutions from three specialised brands, packed with their know-how and expertise for each special machining.

WHY YOU SHOULD CHOOSE THE "BATCH 1" CUTTING CELL

- **A SINGLE OPERATOR FOR COMPLETE PRODUCTION MANAGEMENT.**
- **HIGH PROFITABILITY WITH THE MOST DIVERSE PRODUCTION FLOWS:** zero set-

up and size change-over times, excellent materials management algorithms.

- **COMPACT, SMART STORE:** 100 square metres is all that is needed for a high-tech system that optimises offcuts and material management outside the cell.
- **TOP QUALITY FINISHED PRODUCT:** impeccable materials management and machining.



FLEXSTORE EL 3-AXIS STORE The automatic store that doesn't have to be big to provide excellent performance. Adapts perfectly to the space available, from a minimum of around a hundred square metres to much larger areas. Flexstore EL is built with two sturdy steel load-bearing girders which support a mobile horizontal girder on which the suction cup arm is fitted. Brushless motors drive the girder which runs on flat guides thanks to wheels coated with anti-wear material.

The suction cup arm automatically adjusts to the various lengths and thicknesses of the panel to be picked up and, moving both horizontally and vertically, can travel in the three main directions. It also has a pneumatic device for panel front detachment, and a device for detecting the weight which checks that it has actually detached.

Great **attention was paid to panel**

movement: the horizontal layout of the store prevents any possible damage from sliding. The store uses a labelling system to guarantee full traceability and recognisability of every element.

SOFTWARE The cell's strong point is the new **Watch Store** supervision software. Advanced and modular, it is perfectly suited to the many requirements, making **every pickup operation absolutely automatic:** Watch Store saves the positions of the panels or the semi-finished products re-introduced and even the batch for their subsequent machining operations. Completely developed by SCM technicians, it allows real time control of the store status. Designed to **manage several machines in a cell**, it controls the automatic store and the remote areas, preparing stacks of elements for subsequent machining. In the absence of the operator and based on instructions received, it can prepare "rainbow" stacks of material for subsequent production. "Flexstore EL" is guided amongst the various stacks so as to optimise loading of the machines or to top up or better organise supplies, moving sheets from 3 to 40 millimetres thick without problems. Moreover, always following the best possible trajectory, it guarantees full automation of the entire production process. The supervisor saves every pass, from the

moment when the stack of panels enters the company and is loaded in the store, to the made-to-measure semi-finished product, labelled and ready to be sent on for other steps of the process.

Watch Store also allows integrated management of machining off-cuts, for improved use of raw materials and, above all, **management of the material even outside the cell.** The supervisor saves the location and, in due course, supplies that information to the operator who can recover the specific element and put it back in the machining cell. There are also complete, effective diagnostics, able to supply production reports and with the possibility, upon request, of dialoguing with customer management systems.

GALAXY 3 INTEGRATED FLEXIBLE SAW WITH FLEXCUT Integrated in the Flexstore EL store there is a Galaxy 3 110 single-blade saw with a mobile gripper Flexcut device, the absolute best for flexible panel sizing. The **Flexcut** device is made up of a group of mobile grippers with a stroke completely independent of the main pusher, **slashing**



machine cycle times thanks to simultaneous longitudinal and transversal cutting phases. This result is achieved thanks to the possibility of loading material before the cutting in progress has ended and keeping the grippers of the main pusher out of the machining area. Excluding the grippers means that strips with different widths can be secured and **different types of cutting** can be performed simultaneously **without limiting** the stroke.

UNIVERSAL 2412 INTEGRATED NESTING

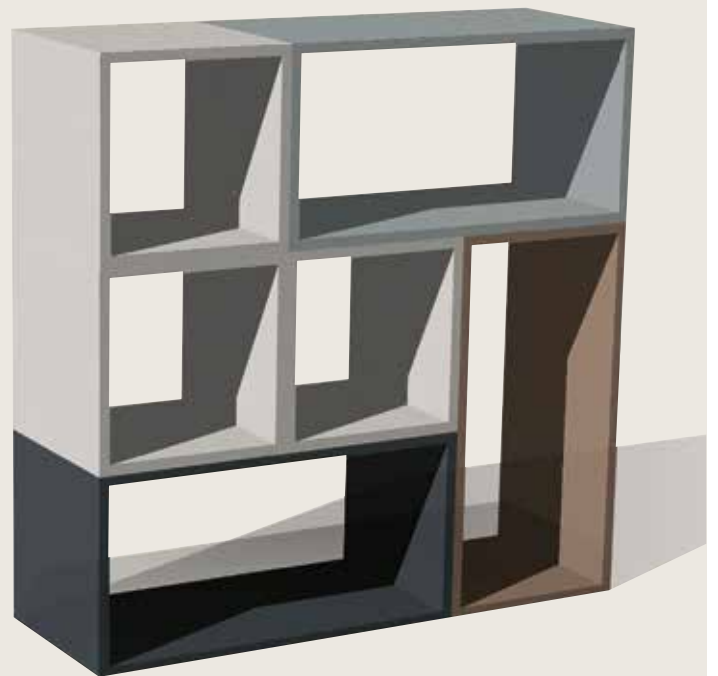
CNC A Morbidelli Universal 2412 machining centre is integrated in the cell. It has a system for automatic loading and unloading of the worktable.

The optimised worktable is divided into vacuum areas to allow even small workpieces to be machined. The machine can be configured with electro-spindles having various power ratings, "Vector" C axis, boring heads and options to meet the most diverse requirements in **rectangular and true-shape nesting**. It can operate both integrated in the cell or as a stand-alone machine. The large number of configurable

tools in the tool magazines makes the machine highly versatile. Care was taken to provide an ergonomic design for the unloading zone and cleaning of finished workpieces is guaranteed.



**A LIBRARY IS THE
CHOSEN FURNITURE
ELEMENT
TO BE PRODUCED
DURING A TECHNICAL
DEMO AT LIGNA
ON THE 'BATCH ONE'
CELL SYSTEM.**



STEFANI Easy Order Az Batch 1 flexible squaring - edge banding cell

Easy Order AZ is the smart solution from Stefani for Batch 1 edge banding, maintaining highly profitable levels and optimum productivity: 800 workpieces per shift.

WHY YOU SHOULD CHOOSE "EASY ORDER AZ":

Immediately produce only what you need, from a single panel to a medium-sized stack with complex mixes in continuously changing scenarios. This is made possible by powerful, advanced applications such as continuous tracking and self-learning.

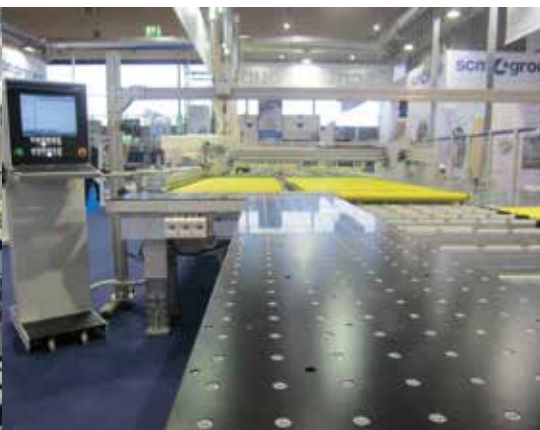
Avoid down times with the aid of the **SIDE FINDER** system, which guides and aids the operator in insertion operations, avoiding uncertainty and production stops.

ALL IN ONE solution for a complete panel squaring and edge banding process, in a compact, optimised architecture

With a single operator the squaring - edge banding cell can profitably manage and produce even extremely limited quantities of panels, managing any interruptions in every shift. **Innovative aggregates** are unveiled for the first time on the Stefani cell, guaranteeing **fast set-up, instant edging changes and maximum care for the panel.**

The cell allows increasingly customised

production, thanks to the interesting panel insertion system, and a router outside the edge bander which allows perfect sizing of the workpiece with repositioning times that coincide with the panel feed rate. The operator simply starts the workpiece machining on the machine with a bar code reading. Then the innovative **"Side finder"** technology constantly keeps the correct positioning of the panel under control and ensures that the machining operations envisaged in the flow are completed. The supervision system constantly monitors each workpiece in production, providing all information in real time. A powerful processor **checks all sensors, axes, positioning devices, references and machining units a thousand times per second.** This guarantees high quality, fast machining, perfectly orthogonal workpieces, absolute flexibility for ever-smaller production batches, even for batch 1 machining.



MORBIDELLI UNIFLEX HP

Batch 1 flexible boring cell



UNIFLEX HP, is the machining centre for all boring, routing, cutting and dowel insertion operations, combining the effectiveness of a boring line with the flexibility of a machining centre. Highly versatile, Uniflex can operate as a “stand alone” machine or integrated in a cell, with various types of workpiece handling and automatic loading/unloading. Upper and lower machining units allow simultaneous machining on opposite panel faces.

WHY YOU SHOULD CHOOSE THE “BATCH 1” BORING CELL

- **New optimised software** with a 25% improvement in cycle times. A leader in its category.
- **No waiting for workpiece loading.** The new automatic machine infeed table lets the operator safely load workpieces while the machine is busy with other machining.
- **Excellent boring capacity** thanks to opposite machining units (lower and upper) with up to 134 independent spindles and latest-generation boring heads with new RO.AX (Rotoaxial spindle technology).

Uniflex is available in two models, S and Hp, offering the best price/performance ratio for any level of investment.

FURNITURE CELLS SYSTEM FOR PRODUCING UP TO 2 ROOMS PER SHIFT

In this cell too the strength of the solution lies in the possibility of dynamic, **optimum integration of individual machines** using **software** which easily manages the increasingly frequent changes without upsetting the **production rate**.

The production capacity of this cell, 2-3 rooms per shift, is popular with companies that have to cater for their on-demand market in real time. They need to be ready to supply a high quality, bespoke finished product quickly and at a reasonable price. Software is used to generate the lists which

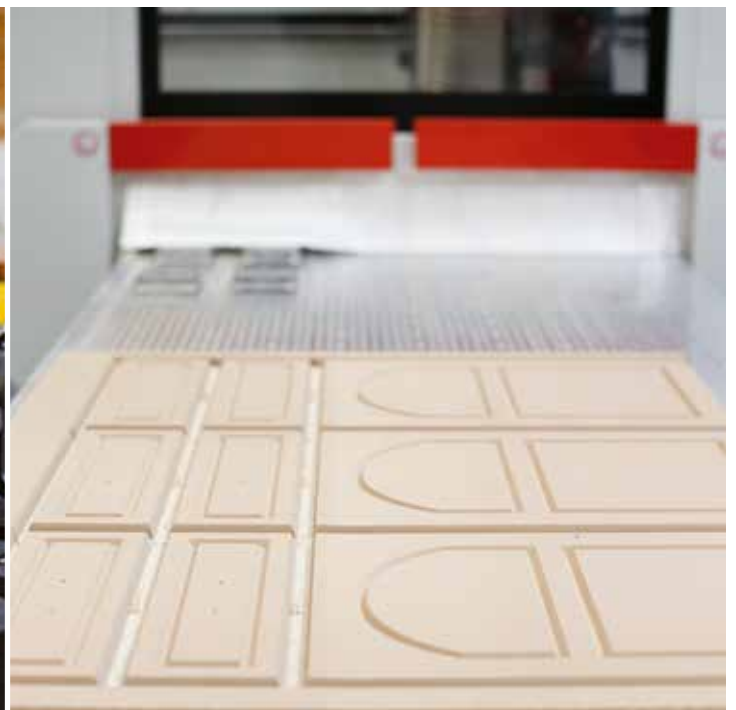
guide the operator and the machine in the best sequence, in small spaces, with all of the agility and flexibility required.

The cell consists of three individual machines which are easy to integrate and at the same time are extremely reconfigurable if necessary:

- **SCM Pratic S15** machining centre, with loading elevator and unloading belt, designed for **nesting cutting of any shape**;
- **SCM Olympic K800** edge banding

machine, with all edge banding functions for guaranteeing continuous, high quality production.

- **Morbidelli Cyflex hp** boring machine for **boring, cutting and routing** with cycle times lower than any alternative available on the market.



CELL SYSTEM TO PRODUCE UP TO 40 DOOR OR WINDOW FRAMES / SHIFT

The cell system consists of:

- SCM Superset NT automatic planer
- SCM Accord WD single end tenoner cell
- CPC Pao 2000 automatic frame press
- SCM Sandya 900 wide belt sander
- DMC System T4 wide belt sander-structurer

The strength of this solution is in the complete and versatile integration of the production process.

Production efficiency is maximised with **software** that is ideally suited to an extremely flexible production.

The specifications of this system mean that it can respond to the growing demand for

customised productions at competitive costs and with fast delivery times.

The system consists of 4 individual machines and a cell, that can easily be integrated and reconfigured according to production requirements.

SCM SUPERSET NT ELECTRONIC PLANER-MOULDER.

The ideal machine for **planing and straightening** workpieces and machining

accessory frames (e.g. glazing beads, cable covers).

SCM ACCORD WD MACHINING CELL.

The cell, with its various **profiling, tenoning and boring/routing operations**, allows users to produce completely finished workpieces.

The continuous presence of the operator is no longer necessary with the automatic loading and unloading system that reduces unproductive times.

CPC PAO 2000 FRAME PRESS

The automatic loading system ensures easy machining.

SCM SANDYA 900 WIDE BELT SANDER


Presented for the first time at Ligna 2015, the machine is fitted with a **precision finishing unit** for sanding doors and assembled frames.

DMC SYSTEM T4 SANDER-STRUCTURER

The machine is fitted with the **Planetario unit** used for the closed pore or structured finish of doors and assembled frames.







FURNITURE TECHNOLOGIES PANEL SIZING AND AUTOMATION

Gabbiani Hi-Tronic
New blade carriage

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New carriage
with independent lift
on the SCM Sigma Prima

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SCM Sigma Impact

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The first step. From panel to elements.
Cut, optimise, begin a great process...

“HI-TRONIC” GABBIANI NEW BLADE CARRIAGE: EVOLUTION COMING FROM EXPERIENCE

GABBIANI experience brings you the new **HI TRONIC** blade carriage allowing improved performance with the single-blade panel saws in the **Galaxy 3** series, increasing their efficiency and quality.

The device includes an oscillating blade-motor support. Saw carriage made of a steel structure sliding on two prismatic guides both positioned on the base unit rear side. The vertical position of the guides in the same area of the base unit, makes the all structure extremely compact. Vertical stroke of the main and scoring blade: sliding on two prismatic guides with the recirculation spheres that are placed on particular surfaces of the saw carriage. Liftings are made by two brushless motors and two screws with the recirculation spheres.

HIGH PRODUCTIVITY, thanks to the high speeds which can be reached during cutting (**up to 60 m/min. for packs**) and the high

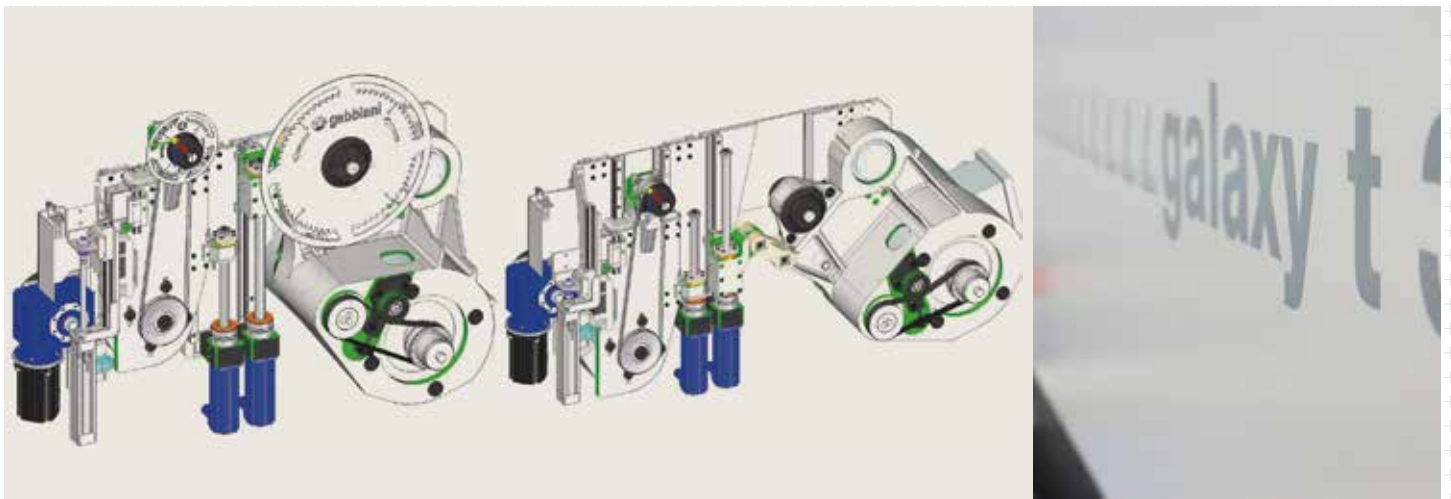
installed power possible for the main blade motor (up to 37 kW - 400V-50Hz).

PRECISION CUTTING WITH A HIGH LEVEL FINISH and VERSATILITY

Thanks to the possibility of fitting high-tech options as the aligner on blade carriage, the high blade projection postforming, the motor-driven blade upstroke and the adaptive control based on blade torque absorption).

SIMPLE MAINTENANCE, even for inexperienced operators, using the new blade belt tensioning system

“Hi-Tronic” is the new industrial solution, designed and patented by GABBIANI, offering top finishing and cutting quality even at high speeds. Quality is always a priority for our customers.



CARRIAGE WITH INDEPENDENT RAISING OF THE MAIN BLADE AND SCORING BLADE IS NOW AVAILABLE ON THE SIGMA PRIMA

The independent raising of the main blade and scoring blade is now also available on the SCM Sigma Prima beam saw range, thus **increasing the potential of using and making possible more machining facilities.**

MAINTAINING YOUR TOOLS IN THE BEST CONDITION

Time optimisation and reduction of costs for tool maintenance due to the optimised height adjustment of the main blade projection on two levels, permitting the setting of the lower blade height in order to **limit the blade wear and assure a better finishing quality.**

FINISHING ACCURACY ALSO IN THE MACHINING OF MATERIALS OTHER THAN WOOD

Moreover, a device for the blade lubrication is now available: this also allows the use of the machine for sizing materials other than wood, by reducing friction during machining and thus **improving cutting quality.**

MANY OPTIONS ON THE SAW BLADE CARRIAGE

- scoring blade for post-forming machining
- panel thickness max 40 mm
- optimised main blade projection on two levels
- lower height 35 mm
- higher height 70 mm
- **grooves** execution device (feed/return)
- **slots** execution device
- **cooling and lubrication** device for main blade



CUT MORE PANELS FASTER: THE “SIGMA IMPACT” BEAM SAW IS MORE PRODUCTIVE WITH THE “FLEXCUT /1S” UNIT



“Flexcut / 1S” single clamp unit, a device that makes the “Sigma Impact” beam saw even more flexible and with higher performance.

PRODUCTIVITY INCREASED BY UP TO A 30%.

DIFFERENT CUTS Two independent pushers allow 2 simultaneous different cuts to be carried out:

- cross and longitudinal cuts
- cross cuts on side-by-side bars
- cross cutting during the platform loading process and following longitudinal cuts

EASY TO USE also when executing complex cutting patterns due to the possibility of including or excluding the main pusher clamps.

SAFE CLAMPING Guaranteed clamping and effective panel movement by means of clamps with a triple “finger” so that strips with different widths can be secured and as a result any type of different cutting pattern can be performed without limiting the stroke.

PRECISION WITHOUT COMPARISON The brushless motors slide on prismatic guideways with recirculating ball bearings, reducing any friction of mechanical parts and ensuring maximum precision.





... THANKS TO A TOTAL UPGRADE

The Sigma Impact panel beam saw has increased its performance and its versatility whilst maintaining the same price and its total ease of use.

The Sigma Impact upgrade has increased the standard machine performance to meet all machining requirements:

- **blade projection has been increased** from 90 mm to 95 mm and from 110 mm to 115 mm, to meet all market requirements in terms of machining unfinished chipboard and other materials.
- **standard speeds of the axes have been increased:**
blade carriage speed 6 – 60 m/min
pusher speed 55 m/min
- **presser movement on prism guides** with recirculating balls has become a standard feature: Sigma Impact is the only panel beam saw in its cutting range with this solution as standard.
- **air cushion tables have changed their appearance:** they have been designed with new materials that meet all loading requirements and guarantee improved and long-lasting clamping.



FURNITURE TECHNOLOGIES EDGEBANDING

Stefani
High quality edgeworking **pg 28**

Stefani
New Generation Finishing Units **pg 30**

Stefani Evolution C **pg 32**

Stefani Solution XD **pg 33**

Our Customers

Gamadecor (Spain)
Stefani and Morbidelli **pg 34**

Stefani Solution MD **pg 36**

SCM Olympic K560 **pg 38**

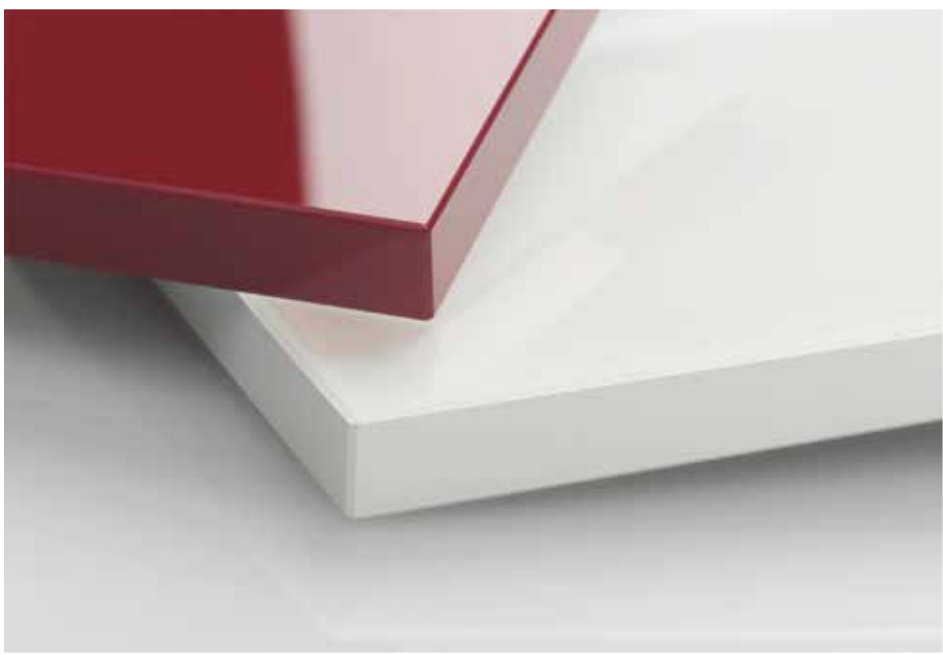
SCM Olympic K360 **pg 39**

The boundary of a surface, of a
piece of furniture.
Edging, a mark of style and
beauty...

HIGH QUALITY EDGE BANDING

Three gluing systems blended together with perfect aesthetics and functionality

The perfect aesthetics of panels, even in large batch productions, has always been one of the main objectives of SCM GROUP's technological research. The new **AirFusion** and **PuBox L** solutions not only provide innovative and real advantages for the operator, but also increases the already impressive range of edge gluing technologies, such as the **glue roller optimised with a tank** or the **SlimLine** technology. All SCM GROUP's edge gluing technologies have been designed with a focus on competitiveness, cost effective production, investment scalability and the maximum care for the materials used.





Pu Box L

The new pre-melting device for polyurethane glue, PU BOX L, with its compact design and perfect integration within the machine, is designed to maintain **the performance of PUR glue at optimal levels and improve consumption by melting the glue only when it is required.** The exclusive CFS cooling device prevents the undesired increase in viscosity and, therefore, the progressive ageing of the glue that is left in the melting chamber. A fast melting and glue level reset system in the PUBOX L prevents incrustations, by reducing the quantity of melted glue in the glue tank by 50%, providing the maximum level of protection from humidity – and therefore from reticulation – as far as the application roller zone, also due to the direct closed circuit coupling of the pre-meeting device with the glue tank. These are just some of the numerous technical features that prove how SCM GROUP's mission is focused on transforming innovation into tools that allow companies and operators to create better products and increase their competitiveness.



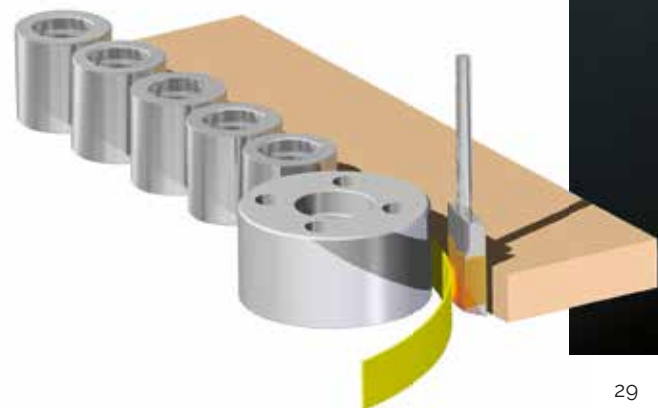
PUR glue

Being **more competitive** due to quality edgebanding with a limited level of investment seems to be an optical illusion. But the patented **SLIM LINE** edgebanding technology has made this a reality. **The PUR glue can be applied directly on to the non-porous surface edge** and the quantity of glue dispensed can be precisely regulated, even with practically invisible glue lines of just 0.08 millimetres! This considerable aesthetic quality can be achieved with an extremely small investment. PUR glue, whose quality is acknowledged and certified by the strictest tests (Uni 9240:1987, for adhesion/tearing; Din 68930, heat/humidity climate cycle; Uni 9242:1987, heat resistance of edges), ensures maximum machining quality and technically perfect results.



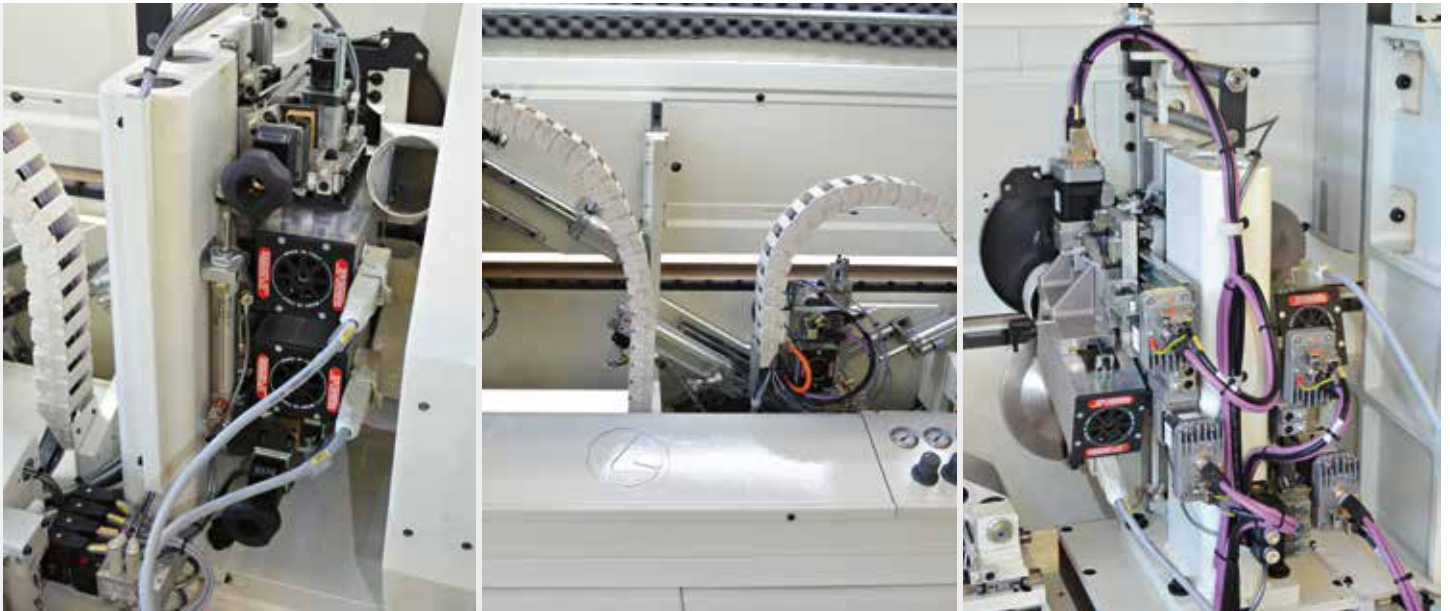
AirFusion by scm group

AirFusion provides a surprising level of finishing quality. This technology, edgebanding without glue, ensures the **joint between the edge and the panel is invisible.** Pressurised air at a high temperature is conveyed on a **specific edge** so that a layer of the material fuses with the panel, therefore ensuring glue is unnecessary. The extremely versatile AirFusion technology is compatible and can be perfectly integrated with traditional gluing technologies. It is also available on the whole range of the SCM GROUP's edgebanders, starting from the Olympic K360 range. AirFusion, with speeds from 15 to 25 metres per minute, can be configured to achieve different levels of performance.





NEW GENERATION FINISHING UNITS



Profitability, intensive use and perfect finish of panels machined in any condition, these are some of the advantages made possible by the **new range of Heavy Duty units for finishing edgebanded panels.**

This marks a new chapter in the history of edge finishing units fitted to STEFANI's high end edgebanders. Their reliability and performance, already greatly appreciated, have been updated and adapted to the demands of the latest materials and productions.

The new **YU/SP** – L end trimming unit makes setting the machining operations of very delicate materials extremely simple from the numerical control. The technology of the linear motors allows for the adjustment of the track feeling force with a 20% reduction, with the same space occupied by a traditional unit, in the gap between panels loaded in the edgebander, with a 15% increase in speed, up to 35 metres per minute, for greater levels of productivity.

The new **R-HD trimming units, RSU-HD chamfering units and RCS-HD edge scraper units** have been designed to minimise the interaction between panel and track feeler to improve the machining of delicate materials. This has been possible with a 55% reduction of the moving dynamic masses compared to the previous generation of units, more precise and fluidity of movement managed by recirculating ball guides and the new

compact **TwinFeeler** pre-track feeling system, that allows the definitive tool positioning whilst it is still outside the work zone.

SCM GROUP's new patented **AFS adaptive track feeling** technology, available for the corner rounding units with 2 motors **ROUND 2** (speeds up to 25 m/min and panel thickness up to 80 mm) and 4 motors **ROUND 4** (speeds up to 35 m/min and panel thickness up to 60 mm), allows for **zero time** set-ups to machine coated panels or compensate for tool wear from the numerical control. The new **MULTIEDGE** devices can be used to define a complete edgebanding process with low production costs by activating an instant switch between machining operations and a three different radiuses production.

The aim is a quality industrial edgebanding process that can be as profitable as possible. This has been made possible by the many developments, improvements and small and large innovations that STEFANI's research has concentrated in this new generation of units. For example the extreme rigidity (single piece closed structure with zero vibration for the columns of the machining units), compactness (**15%** reduction in the tools/column distance, compared to previous versions) and the simpler kinematics (**20 pieces less** than previous versions).

EVOLUTION C SQUARING EDGE BANDING MACHINE

Any type of component completed with just one machine

The first of its type, the Evolution C squaring edgebanding machine continues to set new standards in terms of quality and furniture design possibilities. It has always been the perfect partner for large volume edgebanding production and the most profitable choice for industrial manufacturers looking to the future.

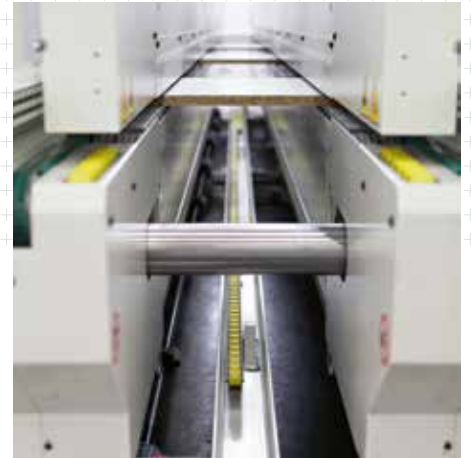
Designed for a constantly evolving furniture design market, any component machined with a single machine.

The new range of **Evolution C** industrial squaring edgebanding machines has been designed to provide a simple solution to any edgebanding problem. The superior productivity and efficiency, along with reasonable operating costs that can be perfectly integrated in to the most complex company set-ups, ensure that this solution is ready to contribute to making the construction of furniture with doors even more profitable and advantageous.

Because competitiveness means being constantly able to update materials and solutions. Evolution C easily adapts to any requirement: from being able to machine particularly delicate edges and panels, even coated in a protective film, to the use of PUR glue with glue tank or spreading slot to raise the quality of performance and the possibility of machining with grooves up to 75 mm from the edge and produce any furniture part without any limits.

The most competitive industrial situations need technologies that can guarantee the required performance levels. The MULTIEDGE technology, for example, allows for instant machine changeovers, guaranteed repeatability of the positionings and an incredible processing speed of the information and parameters, that are controlled 1000 times per second!

Fast production with E-Touch and Watch: expert, tireless and always available to virtual operators!



The new E-TOUCH interface ensures faster set-up times by providing the operator with a **3D virtual preview of the component to be produced and the possibility of focusing on what needs to be produced** and not waste time thinking how it can be produced, even for complex mixtures of production. SCM GROUP's new and extremely powerful WATCH supervisor, with its real time connection of all the command and control information in production lines consisting of two or more Evolution C machines, is designed to control and manage the entire process from a single station. The SAVENERGY package allows for an economical management of the production process with a reduction of operating costs by up to 10%.





Everything is “extra”,
even within the name

NEW SOLUTION XD EDGE BANDER

AirFusion
by scm group

High productivity and low operating costs, profitable returns on investments, higher machining quality than any standard, technical perfection without compromises, maximum finishing quality, the possibility to contribute to the construction of high design furniture, utmost flexibility and software and apps that allow for a very fast passage from programming to production. These are just some of the highlights of the new SOLUTION XD range, the latest creation of STEFANI's enormous knowledge in industrial edgebanding. The latest SOLUTION XD is the perfect partner for super-optimised, highly integrated and extremely evolved production situations. Due to the new generation of **Heavy Duty** trimming, chamfering and edge scraper units and the more rigid supporting structures with **55%** lighter dynamic parts compared to previous versions, end users can generate a high quality production process with the utmost attention to the characteristics of the panels being machined, especially extremely delicate panels.

The new range boasts a substantial reduction in production times due to a series of devices such as the **NestingLock** that allows panels with holes for hinges, normally generated through the panel nesting process, to be machined very flexibly and without stopping the machine, reducing set-up times by about 25 minutes compared to the previous version.

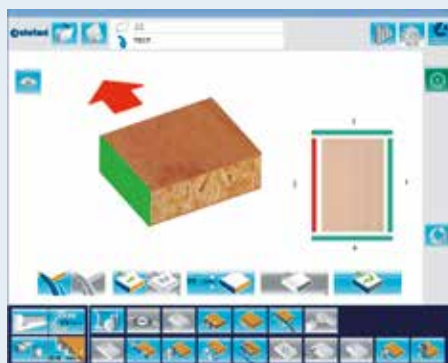
The new generation of corner rounding units with 2 and 4 motors, **Round 2** and **Round 4**, allow for the creation – with practically negligible set-up times – of furniture components for any aesthetic style, by being able to machine three different radiuses with speeds up to 35 metres per minute on any type of material, including wood.

That is not all: today you can achieve immediate track feeling micro adjustments, up to the hundredth part, with the new and exclusive patent for SCM GROUPS's **AFS** adaptive track feeling system.

The range of corner rounding units is completed with the interpolating axes version 2M100 that, in a special configuration, can even machine components with J-shape profiles.

SOLUTION XD, offers the broadest range of finishes for the edge/panel joint, allowing end users to use EVA glue, optimised PU glue, the patented SLIM LINE technology and the **AIR FUSION** joint free technology.

The new **E-Touch** interface is a veritable virtual operator that allows the machining of any size and mix of orders in incredibly short times, due to the self-learning function and the possibility of managing the entire process so that end users are free from thinking about how to produce something and focus on what to produce.



Gamadecor Porcelanosa Grupo

Looking for great design

GAMADECOR

(VILLA REAL, SPAIN)

COMPANY OF THE PORCELANOSA GROUP
SPECIALIZED IN FURNITURE PRODUCTION
OF THE LIVING AREA AND BEDROOMS.

www.porcelanosa.com

T H E S P E C I A L I S T



From geothermal energy systems to curtain walls, from contracts to engineered flooring, from kitchens to taps and fittings, from bathroom furniture to sanitary fixtures, from ceramics to living room and bedroom furniture.

A real colossus. Forty years of history, a presence in more than 100 countries, more than 5,000 employees, a turnover of around € 1 billion. But what best defines this splendid company is what we call "Porcelanosa Street", a long street in Villareal, a town around 50 km from Valencia (Spain), onto which the group's eight factories look. A street that seems never ending, amongst the orange groves...

Gamadecor is a **Porcelanosa Grupo** brand. It produces furniture, above all for bathrooms and kitchens, but also for living rooms,

double and single bedrooms, tables, chairs, mirrors. It makes high quality products for the top end of the market, exporting to fifty countries, with more than 400 points of sale world-wide. And a part, however small, of the credit for such success on world markets goes to the group's testimonials: from Valeria Mazza, Miranda Rijnsburger (wife of Julio Iglesias) or George Clooney, not forgetting that Porcelanosa group is also one of the official suppliers to Prince Charles, the Prince of Wales.

At Gamadecor people are looking for great design. They imagine, design and build furniture that is extremely elegant, with absolute shapes, where it is the leaves or the very shape of the furniture that create points for opening a door or a drawer. Rigorous, almost minimalist shapes. **Creating the handle from the leaf itself; "J shape"** is the

best-known definition, but not necessarily, because these "handles can be produced by the most complex profiles, easy to obtain from a solid wood element or one that will be varnished. It's more difficult to find a less expensive solution that brings this elegant feature within reach of the many. Stefani's **"Evolution One"** is the edge banding machine which has solved the problem. A powerful, complex single-sided machine, able to cover profiles with 90 degree angles or extreme curves without any problems, using PVC or ABS edging in thicknesses of up to 1.5 mm. These sturdy materials are applied using polyurethane glues, guaranteeing absolute hold, maximum resistance to moisture, even to water, and to the most extreme temperature changes!



GAMADECOR SHOWROOM AND FACTORY IN VILLA REAL

“More than 80 per cent of our furniture is designed with these “handles” and with our new Stefani machine we have found the best possible solution”, says **Jose Herrerias**, the young general manager of the Catalan furniture manufacturer. “For our group technology is a fundamental element and being able to combine our idea of design with a solution that lets us provide maximum quality was crucial. Unlike most furniture makers, we don’t **focus** on price, but **on quality, originality**, favouring the architectural style of **linear furniture**, a trend that will spread in the coming years. It’s a way of making sure we stand out, of being competitive and innovative before others, of looking to the future of our company with great optimism”. “**Scm Group** with its highly specialised

machining technologies, such as **Stefani** for edge banding and **Morbidelli** for boring and routing centres – there are also Morbidelli machining centres at work in the Gamadecor factory - is the ideal partner for us, a **single source able to take care of every aspect of the most minute, niche requirements**”. “Scm Group’s added value – says Herrerias – isn’t just the technology, but also the “human factor”, the quality of the people who work at Novorex, its Spanish branch. For us, having suppliers who understand our goals, meet our requirements in a flexible way, no matter how unusual they are, guarantees a winning collaboration”.

“ More than 80 per cent of our furniture is designed with these “handles” and with our new Stefani machine we have found the best possible solution. ”

JOSE HERRERIAS
General Manager Gamadecor

by Luca Rossetti - Xylon



SOLUTION MD

THE EDGE BANDER FROM THE STEFANI RANGE THAT IS CONTINUOUSLY BEING DEVELOPED

High performance and possibility to process panels with thin edges, thick edges with different radii and solid wood up to 22 mm. These are the main features of the new Solution MD, the Stefani edgebander presented in 2014, and designed for all companies who require continuous production of a large number of panels even though they are all different from one to the next.





AirFusion
by scm group

From now on, available upon request, is the new **top belt panel pressure beam**, which guarantees the very best finishing quality on very delicate panel surfaces and with high speed machining.

HIGH PRODUCTIVITY Due to the automatic operating units, the working speed of 25 m/min and its sturdy industrial machine structure.

EDGE BANDING WITH SOLID WOOD UP TO 22 MM WIDTH The wide magazine for the wooden strips (200 mm approx.) and the free entry to the gluing area allows a simple and functional use of the large dimensioned solid wood edges.

POSSIBILITY TO WORK EDGES WITH 3 DIFFERENT RADII with the use of fully automatic "Multiedge" operating units, that also allows error-free rapid setting-up amongst the different types of machining.

Wide range of available options, including:

- device for **automatic edge changeover**: to avoid stopping production when a roll ends
- **spindle moulder unit**: to carry out grooving on the sides of panels
- **sanding unit**: for sanding the panel edge
- **saveEnergy** kit: to optimise the machine's energy consumption with energy savings of up to 11%



OLIMPIC K 560

AirFusion
by scm group

High performance and competitiveness at all times, and now fully automatic



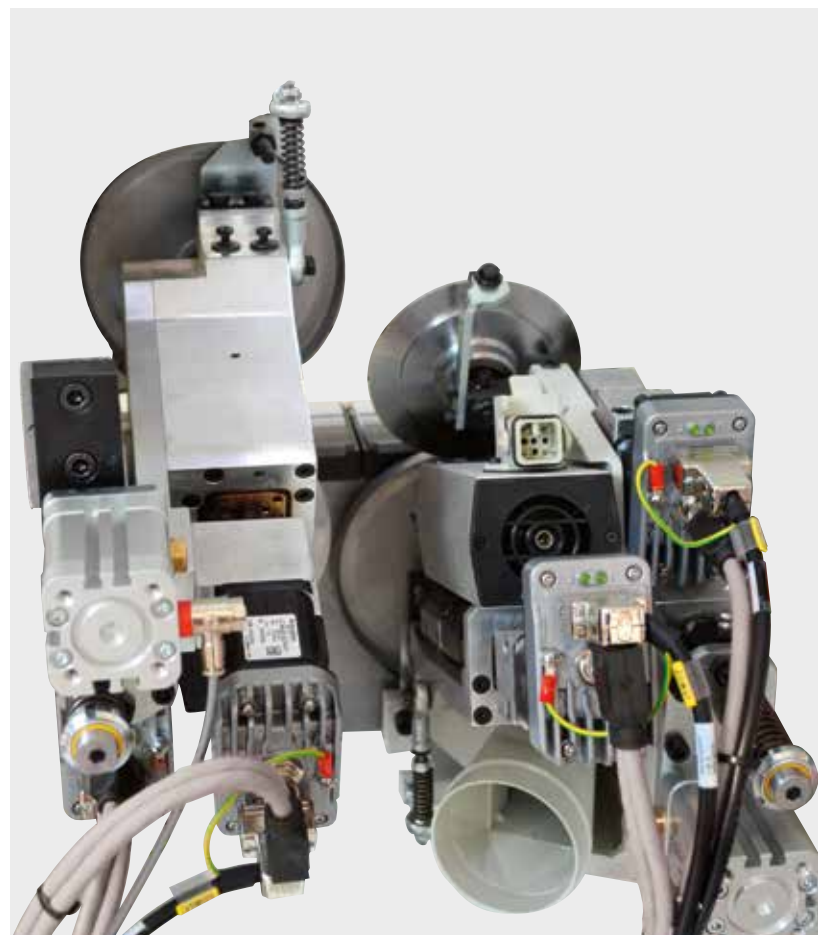
As from now, the Olimpik k 560 can be equipped with the **new trimming and edge scraping groups** with controlled axes which allow the working of **2 different radiuses, many different thin edges and solid wood up to 8 mm**. Olimpik k 560 is therefore now more versatile to use and enriched with advanced solutions.

PERFECT RESULTS ON ALL SURFACES The **controlled axes** allow all intermediate positioning of the **trimming and edge scraping groups**, ensuring optimal edge banding even in the case of surfaces with different degrees of roughness or panels covered with protective film. The controlled axes are also present on the other operating groups, i.e. the upper presser, the infeed fence, the rounding group or the pressure rollers of the gluing group.

EDGE BAND PANELS WITH BORING HOLES FOR HARDWARE Trimming group and edge scraping group are also equipped with special copying devices with 3 contact points to machine panels coming from the "nesting" working cycle, therefore panels with bored holes for the hardware application.

A "TOUCH" TO EDGE BAND WITH A 12" TOUCH SCREEN Olimpik k 560 can now be equipped, with a **12" touch screen display** with customised graphics for intuitive and error free machine management.

HIGH PRODUCTIVITY AND QUALITY WITH 2 MOTOR TECHNOLOGY The features of the rounding group allow the simultaneous **rounding and trimming of the edges**. Two operations, in a single group, occupying less space and with the working distance between panels of only 600 mm allow a reduction in production time for the edge banding of panels.



OLIMPIC K 360

The best edgebander available at your finger tips

Versatility and high machining quality with the SCM Olympic k 360, the machine with the aim to be the new reference point in the market for **entry level edge banders and complete with a rounding unit.**

JUST A "TOUCH" TO USE THE MACHINE

Error free machining with the touch-screen display with its customised graphics that allows an intuitive and easy selection of the main machine functions.

CUT AND "RADIUS" IN A SINGLE OPERATION

Automatic and error free cutting of thick edges due to the particular system with two blades that allows the straight cutting of solid wood edges and the chamfering of thin edges.

EDGE ANGLE FINISHING ON STRAIGHT AND SHAPED PANELS Rounding of front and

rear edge angle on straight, chamfered and post-formed panels. The operation is automatically carried out by the unit and ensures optimal finishing, without the requirement of further machining.

3 DIFFERENT MACHINING POSSIBILITIES

Rapid machine changeover between thin, thick and solid wood edges due to the 3 working positions available and the "Combi" tool supplied as a standard feature with the trimming unit

Compact and easy-to-use due to its advanced technological solutions designed to ensure optimal panel finishing. It is simply the perfect edge bander for companies who require continuous and high quality edge banding of panels even though they may be different from one to another.

The availability of many devices and the possible machining solutions grant:



- **Best finishing quality** with the simultaneous use of the glue scraping and brushing groups.
- **11 m/min feed speed** with the panel feed track equipped with a large dimensioned chain.
- **Lower consumption = lower costs** with the SavEnergy kit that optimises the power consumption with a year's saving of up to 10%.
- **Highest level of panel cleaning** by utilising the anti-adhesive spray guns that prevent any sticking of excess glue on the upper and lower panel surfaces.
- **Best panel finishing with the holes for hinges**, due to the copying devices with 3 rotating contact points.



MAIN PERFORMANCE

Panel thickness
8-50 (60) mm
Edge thickness
0,4-3 (6) mm
Feed speed
11 m/min



FURNITURE TECHNOLOGIES SOLUTIONS FOR BORING AND ROUTING

Morbidelli P800

boring, routing and edgebanding centre

pg. 42

Morbidelli

boring systems

pg. 44

SCM PratiX S15

cnc machining cell

pg. 46

Our Customers

BoConcept (Denmark)

Morbidelli Author M400

pg. 48

Our Customers

Diesse Arredamenti (Italy)

SCM Ergon NT

pg. 50

Boring, routing, edge banding.
Creating shape and purpose.
Defining the look, so that every piece
of furniture is “special”...

PLANET P800 ENSURES FAULTLESS QUALITY IN ROUTING, BORING AND EDGE BANDING

Morbidelli presents Planet P800, the latest machine in the Planet range that simplifies the production of shaped panels up to 6360 x 1905 mm in size.

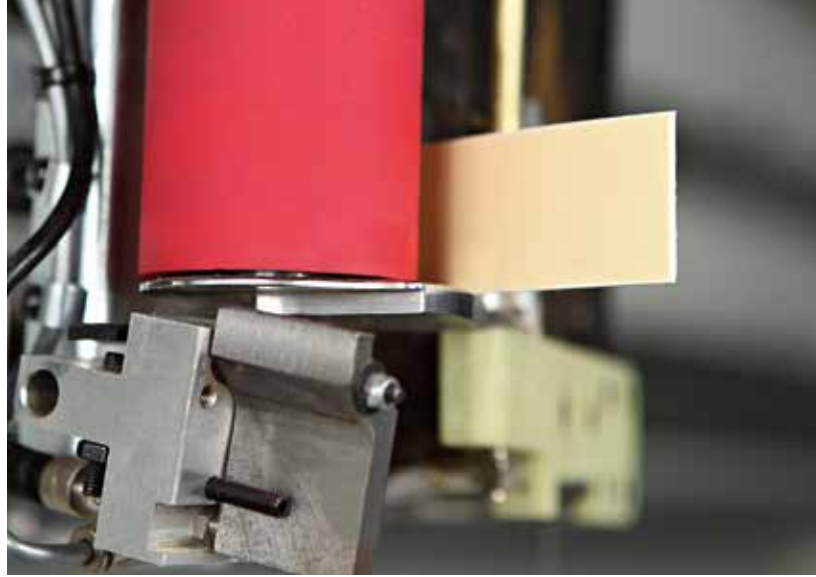
Planet P800 has been developed to meet the growing need, of large industrial productions and small to mid-sized companies, to increase performance and improve their competitiveness in the production of custom products

The unique aspect of Planet P800 is its **innovative NC worktable and automatic workpieces separation function** that allows **various panels to be machined with a single loading operation** to increase flexibility and productivity that no other solution can provide.

The new edge banding unit applies edges on panels **up to 80 mm thick**. The new exclusive "**SBRINDLE**" device detects the position of the initial part of the edge "on-the-fly" and guarantees perfect 0-360° joints, always, even in batch 1.

Maestro Edge, the latest 3D software, performs all types of machining operations on a single platform and allows less expert operators to





create, change and manage edge banding programs with **maximum execution speed**. Simple and safe **from the initial idea to the finished product**, with many new and remarkable functions to work all aspects of the panel.

Further technological pluses of the PLANET P800:

* **5- FOLD INCREASE IN PRODUCTIVITY LEVELS** with the Matic work tables that allow for 4" setup times to change between machining operations.

* **ZERO LIMITS** to the shapes that can be machined with the independent and interpolating **4 and 5 axes** routing solutions with **360° continuous rotation**, production costs reduced by 20% with the **10 and 18 position magazines** installed directly on the machine, so that tool changes do not affect machining times.

* **ZERO PLAY** with the new RO.AX technology (Rotoaxial spindle technology) that ensures perfect boring. The most efficient spindle on the market **with rotation speeds up to 8000 RPM** to configure the machine with different boring units from **26 to 50 independent spindles**, for customers demanding high boring levels.

* **ZERO DEFECTS:** perfect edge banding even on complex profiles with the new gluing unit that applies glue directly on the edge and an exclusive glue roller **with integrated heating element** to ensure uniform gluing always and in any condition.

* **MACHINING ANY TYPE OF EDGE IN ALL SITUATIONS.** The **NC Z axis** allows the lower projection of the edge to be adjusted in relation to the work table to centre it in relation to the panel, for example when using dust seal edges. The automatic adjustment of the height of the edges feed system guarantees zero down times in batch "1". Maximum flexibility is provided by the edges magazine that can hold up to 12 different edges.

BORING WITHOUT LIMITS AT LIGNA 2015

**From single machines
to complex production lines,
from mass production
to batch 1**



The greatest challenge faced today in small woodworking workshops and in industrial productions is to achieve the optimal performance from woodworking machines whilst maintaining the highest quality standards. Morbidelli has met this challenge and brought its latest developments, which are once again the reference point in flexible boring, to Ligna 2015.

CYFLEX hp, UNIFLEX hp, POWERFLEX S: to produce batches or individual pieces with utmost flexibility and high productivity levels.

CYFLEX hp: the extremely compact borer for all boring, blade cutting and routing operations. The machine features the lowest cycle times of any other competitor in the market thanks to 2 independent boring heads that optimise any boring diagram and the 6.6 kW 24,000 RPM electrospindle complete with 6-tool magazine. This ensures maximum productivity in **batch "one" productions.**

The latest generation ultra-stiff **boring heads with independent Y** and with the RO.AX (Rotoaxial spindle technology), ensure perfect boring results. The most efficient spindle on the market.

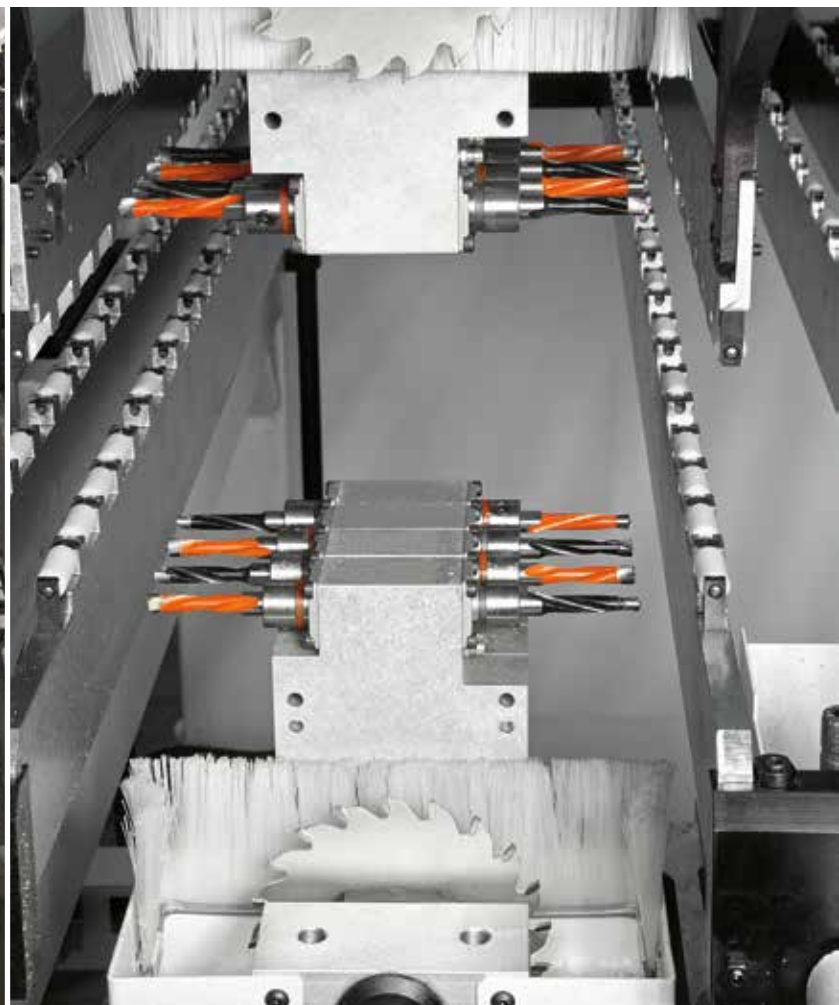
PERFECT JOINTS: AUTOMATIC READING OF THE WORKPIECE LENGTH. Any difference between the actual length of the panel and the one set is measured and corrected during boring, to eliminate any possible waste of material.

COMPLETE MACHINING CYCLE: BORING AND DOWELLING. The possibility of gluing and dowelling directly in the machine ensures that no time is wasted in moving panels in the workshop.

THE LATEST GENERATION XILOG MAESTRO SOFTWARE IS SIMPLE AND EASY TO USE. An incredibly simple software, ideal even for non-expert operators

UNIFLEX hp, is the work centre designed for all boring, routing, blade cutting and dowelling operations, that integrates the effectiveness of a boring line with the flexibility of a work centre. **You will find a detailed introduction to Uniflex in the 'batch one' flexible cell article, in the first chapter of this publication.**

POWERFLEX S, is the evolution of the world famous Author 924, which was the most highly productive, flexible borer for minimum batches from 50 to 200 workpieces. The new POWERFLEX 950 guarantees even broader production ranges and its extremely flexible configuration possibilities ensure that



clients have no production restrictions and can produce **workpieces that differ from each other**.

POWERFLEX S, designed by listening to our customer's suggestions, features:

A HIGH LEVEL OF ELECTRONIC AUTOMATION and the use of state of the art technologies that guarantee **high productivity levels, that can reach up to 28 workpieces per minute and much faster setup times (from 5 to 20 seconds)**.

EXTREMELY HIGH QUALITY FINISH AND ABSOLUTE MACHINING PRECISION. The single-piece mechanical structure ensures long-lasting vibration-free operation and provides a high level of stiffness to the latest generation of ultra-rigid 8000 RPM boring

heads along with highly flexible configuration possibilities to meet any production requirements: up to 12 boring heads and over 330 independent spindles.

EXTREMELY HIGH PRODUCTIVITY LEVELS WITH THE POSSIBILITY OF CHANGING PROGRAMS IN JUST A FEW SECONDS

thanks to the axes positioning speed of 80 m/min, and the high level of autonomy of the units.

Furniture manufacturers choose FLEXIBLE production processes with CONFIGURABLE machines and devices that require INTUITIVE programming.

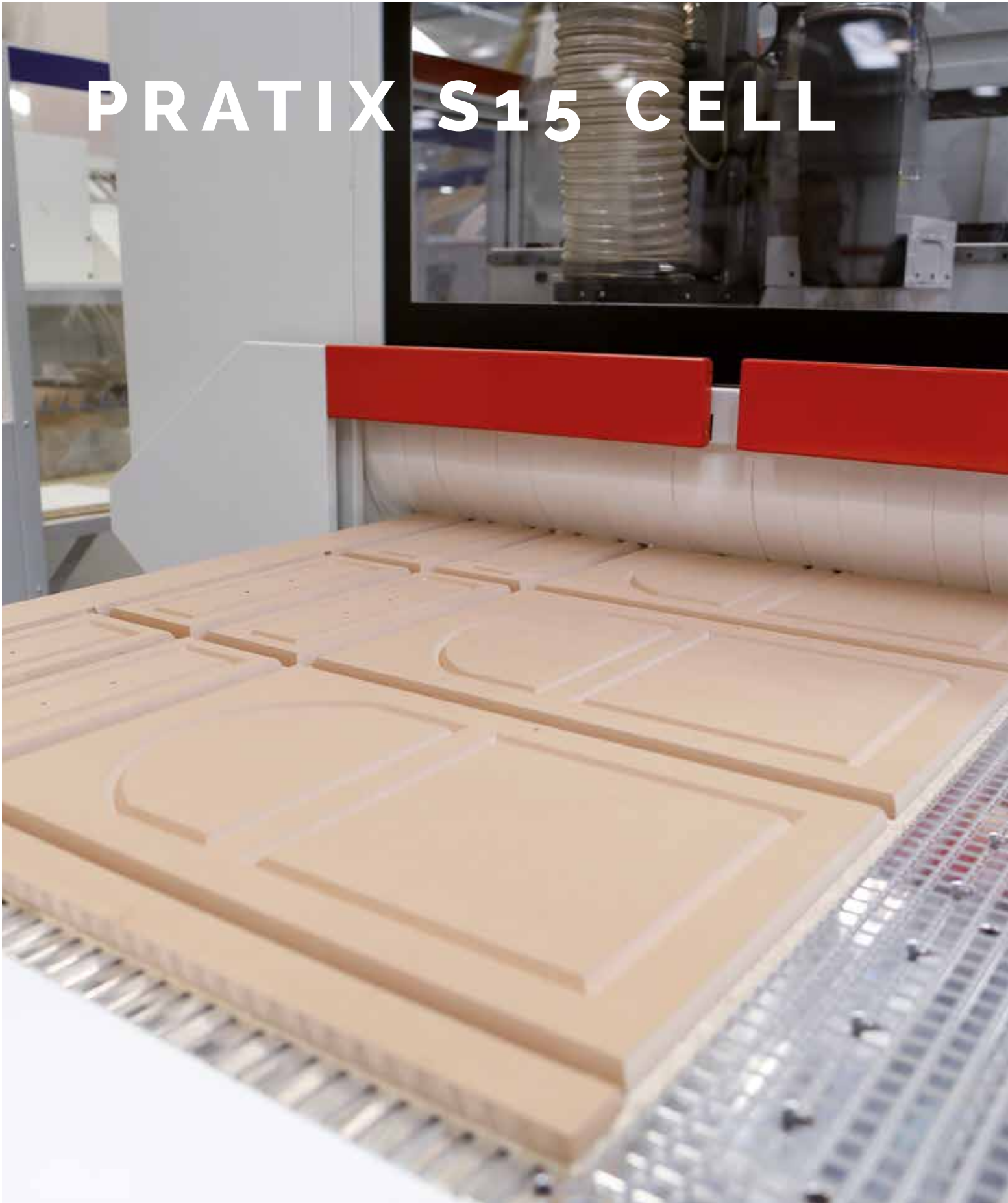
POWERFLEX S is their choice because it concentrates various machining operations in a single machine and it can be set up with upper vertical boring units and horizontal units, to complete the boring operations on

5 sides of the panel and meet the client's requirements.

Further technological pluses:

- Up to 5 completely automatic and independent contrast pressers
- Up to 8 retractable automatic worktables
- Automatic 0-90° rotation of the boring heads to optimise machining and use of the tooling
- Options integrated in the heads: electrospindles, blade unit, hinge heads and front-back heads
- The new software optimises the machining times and ensures a simple and intuitive programming and use of the POWERFLEX S.

PRATIX S15 CELL



the custom nesting technology for forward-looking customers

The most compact flexible cell on the market that, complete with loading elevator and unloading belt, is the ideal solution for an initial woodworking investment to achieve high performance levels with limited costs.

PRATIX S15 developed by focusing on the highest standards of **quality, flexibility and precision** is available in **numerous configurations** that render it the most complete work centre of its category.

Always available **24-7** with the **boring head** fitted with 12 vertical spindles and 2 horizontal 8000 RPM spindles and the new **RO.AX** technology (Rotoaxial spindle technology) that ensures perfect boring operations and faster machining times.

Reduction of machining times with tool change systems that reduce work cycles by 25%. The electrospindle, available with a motor up to **9.5 kW (13 Hp) and 24000 RPM**, is fitted with a TR10 magazine for large-sized tools.

The workpiece infeed aligner positions the infeed workpiece correctly, guaranteeing maximum precision in the subsequent machining phases.

NC interpolating Vector axis with digital control, ensures that there are **no machining limits** and simplifies even the most **complex operations**.

These features allow the **PRATIX S15** work centres to decrease labour and reduce both down times and machining waste. The wide range of devices available and the machining solutions ensure:

- * **complete reversibility**: the right - left and left - right work flow ensures that the cell is completely reversible to easily adapt to any company layout and logistic;
- * **total safety**: the "PRO-SPACE" protections have no perimetral protections and allow free access also from the rear of the machine;

PRATIX S15 the ideal choice to maintain the competitive edge.



BoConcept

When
design
and quality
require
new technology

At **BoConcept**, a Danish retail furniture chain, they bring their focus to innovative and creative design and combine it with high quality in their products. That gives a challenge to their existing production facilities and that is why BoConcept invested in a new fully automated CNC-cell to meet the requirements and at the same time to develop an effective and flexible production.

BoConcept thinks and delivers coordinated and leading design to end-users, where every single detail is sophisticated. The new furniture series within e.g. shelves and sideboards, includes a strong rising in 45 degrees connections, where there is a high requirement for the production, to make a good, **very precise and long-lasting collection, which can be sold as a knock-**

BOCONCEPT

(HERNING, DENMARK)

PRODUCER OF CONTEMPORARY STYLE FURNITURE

RETAILED THROUGH OWN STORE BRANDS

www.boconcept.com

T H E S P E C I A L I S T

 morbidelli



BOCONCEPT PLANT

down. At the same time, the customer should end up with the well-known high BoConcept quality.

Collaboration with leading, **international furniture designers** claims a big challenge in the production, with constantly many new models with creative character. Simultaneously it is required, that the production works effectively with such low production employee costs, that it pays to produce competitively in Denmark.

FLEXIBILITY AND PRECISION

The main request for the new production cell was flexibility, both regarding to the size of the series, but also the possibility to produce new types of collections, drilling and other adaptations e.g. new fittings. Even precision, which had to be very high, as the object shouldn't get milled, but first edge glued and then reworked. "That we couldn't achieve with production lines. That's why we

chose an effective CNC cell, where we reach optimal flexibility and at the same time a good capacity. With this logistic it has a low staff requirement," says production manager Kim Sejbjerg.

The choice fell on a solution from LINDLARSEN, containing two **Morbidelli Author M400** portal build, 5-axis CNC machines. Loading and unstacking happens with a robot from the stack. The stack is transported in and out of the cell on two belt conveyers. In the cell a precise alignment of the object is implemented. The Morbidelli machine is outstanding with a very fast drilling process and tool change. Depending on object type and working process, the cell delivers continuously two finished pieces per minute. Both machines work in pendulum, which gives the best utilization. Furthermore, the 5-axef routing-unit optimizes the process with saving machining time and tool change.

CLOSE COLLABORATION IS NECESSARY.

"We chose this solution, because this was optimal related to capacity, flexibility and investment. At the same time it required less space and could deliver the demanding high precision", says project leader Poul Brændgaard. "The CNC-cell from SCM produces continuously and has to get staffed with only 1/3 operator, which has to take care to feed the stacks and register them on the belt conveyers, do the quality control etc." continues Poul Brændgaard.

With the new cell it is therefore the target, to automate the previous specialized production, which becomes due to the many new models a continuous growing part of the whole production.

The finished cell was developed in a close collaboration with BoConcept, LINDLARSEN and SCM Group.

Diesse Arredamenti

Specialists in excellence for boats and ships



Paolo Ravaglioli, owner of **Diesse Arredamenti** is in no doubt about it: 130 employees, 10 million in turnover, not to mention ancillary industries involving many SMEs. Around one hundred vessels furnished every year, 15 to 40 metre yachts. The headquarters is in Forlì and the Romagna coast is not far off. Although Diesse vessels sail all over the world.

"I have been fitting out boats forever and have always opted for new technologies, but it was the financial crisis that gave me another push in this direction. In 2009 I realised that I had to change the way I thought about production and invest more in innovation. We boosted the technical office, but still kept our "artisanal passion", our manual skills. We enhanced the latter with 3D software and the latest-generation numeric control machines".

The courageous decision paid off for Paolo Ravaglioli, now a partner of leading boat building companies: **Ferretti Group**, **Azimut-Benetti Group**, **Sanlorenzo**, **Monte Carlo Yacht** and English motor yacht manufacturer **Sunseeker International**, which in 2014 even named the Forlì-based company supplier of the year for quality. Diesse is also working in the sailing sector, for which the ability to work high

performance materials is essential.

Investments, certifications (Diesse Arredamenti is UNI EN ISO 9001 certified, guaranteeing its quality management system, and OHSAS 18001 to guarantee suitable occupational health and safety management, as well as compliance with the regulations in force), quality of the materials, style, design skills, attention to detail, because every boat owner who purchases a vessel wants customisation and perfection.

"Precision is fundamental – says Ravaglioli – and we've solved the problem with CNC machining centres: Cms, Morbidelli, Scm are partners that we have always worked with. They have allowed us to improve efficiency and productivity".

The last investment was a Routech "**Ergon NT**", "... a nesting machining centre through which every bit of furniture we make goes, from walls measuring several square metres to small parts just a few centimetres big". That was the problem: for every order, **each set of furniture on average is obtained from 250 panels, from which we get at least 2,500 pieces, all different**. A solution to this complexity was found

“ Without modern technologies, companies working in the boat sector would be limited, maybe extremely limited considering the tight production schedules and the flexibility needed to manage increasingly demanding client requests in terms of quality and customisation. Building a boat and fitting it out require great expertise, which Diesse Arredamenti has gained over the years. Today it has exclusive know-how that allows it to use a highly flexible system to produce the most diverse solutions for all types of boats. Its production processes are organised for maximum efficiency and finished product quality. Numeric control technologies have allowed us to do more at a lower cost, approaching perfection... ”



in the machining centre technology. Its high performance is thanks to a loading and unloading system which considerably speeds up the work done on the machine's two worktables. The effectiveness of the large Routech machining centre is amplified by the special vacuum table that doesn't just position the panel on the worktables, but at the end of the cycle applies suction, carrying the panel to the unloading zone, where the operator separates the workpieces that will be used to build the furniture from the offcuts.

"Scm Group technicians solved our problems, helping us to increase the quality of our product and our work", confirms Paolo Ravaglioli. **"This machining centre has truly superior performance:** we work on perfectly clean worktables, thanks to an effective sweeping-extractor system; we obtain elements whose dimensions are exactly what we planned; we have an excellent loading and unloading system which makes the operator's work better and safer, and a vacuum system for workpiece hold-down that only comes on when it's needed. To sum up, investing in technology allowed us to keep our place as top level boat furniture makers."

DIESE ARREDAMENTI
(FORLÌ, ITALY)
BOAT FURNITURE MANUFACTURER
www.diessearredamenti.it

T H E S P E C I A L I S T





FURNITURE TECHNOLOGIES SANDING AND FINISHING

DMC System
new finishes with the hand scraped effect pg 54

SGM Sandya 900 pg 55

LIGA Laboratory, DMC and Superfici
(Russia) pg 56

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Our Customers

Katiusha Dyatkovo (Russia)
Superfici pg 60

Colour. Structure and sensations.
Touch. What is perceived.
The things we touch, brush past,
see, feel...

DMC System

Exclusive artisan finishes with the hand scraped effect

In order to compete in today's market it is essential to provide one's clients with exclusive products with superior aesthetic and functional specifications. DMC has created a series of technological devices, unique in the sector, for the System range of flexible sanders that allow users to achieve finishes found in artisan products such as the saw cutting effect, worm-holes, hand scraped effect, longitudinal and transversal waves, as well as the most disparate brushing and rustication effects.



hand scraped effect



worm-holes and hand scraped effect



hand scraped and saw cutting effect

The innovative **hand scraping unit**, developed by DMC, allows the reproduction on an industrial scale of the artisan finishing effects obtained with a hand scraping tool. This highly in-demand finish recalls manual woodworking processes and confers an authentic and valuable characteristic to wooden furniture.

The system of vertical and transversal tool movements allows users to freely reproduce unlimited hand scraping effects that differ in terms of depth, trajectories and the shape of the grooves. Any effect can easily be achieved due to the translation system driven by brushless servomotors that guarantee fast and precise movements and the Hydra-PC control that allows for simple and intuitive programming of the machining unit.

The **complete modularity of the System range** allows end users to freely combine machining units together to achieve the most dissimilar effects and vice versa to replace them **quickly** and **economically** to adapt the machine composition to the market requirements.

The innovative range of DMC "System" sanders has been designed and constructed as a veritable **"technological container"** able to host up to 10 machining units, resulting in an extremely advanced solution that can meet any finishing requirement, even the most complex.



SANDYA 900



And there's more...

- Heavy stock removal during the calibrating operation due to the **wide availability of motor powers** (up to 22 kW) for each operating unit
- Easy-to-use with the **worktable at a fixed height from the floor** that allows the combining of the machine with systems for loading/unloading and movement of the work piece
- **2620 mm abrasive belt length** for perfect finishing and maximum productivity
- The possibility to equip the machine with **grain evidencing** or **buffing units** to carry out particular finishing operations (rustic or weathered effects)

The new **Sandya 900** is the correct choice for medium to high industrial companies that require **diversified machining with a high level of finishing quality**.

SANDING AT THE BEST LEVEL WITH THE SUPERFINISHING UNIT

Uniform finish with the Chevron belt which improves the **cooling** of the **abrasive action** on the work piece, the wide contact surface and the copying capacity of the "MESAR" electronic pad. The unit is particularly suitable for the superfinishing of solid wood components, MDF

EXTREME COMPACTNESS DUE TO THE INTEGRATED ELECTROFAN

Integrated electro-fan provides extreme compactness. **Reduced overall dimensions and noise emissions** with the fan positioned under the work table.

PROGRAMMING WORK BECOME SIMPLE AND EFFECTIVE WITH THE "LOGIC TS" CONTROL

With LCD display and touch-screen function, it allows **complete** and **safe control** of the

machine, easily and intuitively. The possibility to store up to 120 work programs to retrieve the machine settings most commonly used makes it perfect even for unskilled operators.

After the success of the Sandya 300 and 600 models, aimed at the small and medium-size woodworking businesses, SCM increases its range of wide belt sanders with a new machine designed and produced to provide **versatility, high rate of production** and a **quality finish**.

Sandya 900 **satisfies all calibrating and sanding requirements**, by offering a wide range of technological solutions allowing the possibility of customising the machines compositions. Many types of operating units such as planing units, roller units (with 175, 220, 250 and 320 mm diameters), pad units and superfinishing units guarantee the very best results on **solid wood, veneer, laquer** and **paint operations**.



LIGA, SUPERFICI AND DMC A PARTNERSHIP LOOKING TO THE FUTURE



Fryazino, on the outskirts of Moscow. This is where LIGA, Russia's reseller of coatings made by an Italian company, Superfici, specialists in coating technologies, and DMC, specialists in sanding and thickening technologies created something unique in Russia: a **"Coating kitchen" laboratory, where furniture, door and window and timber item manufacturers can experiment with machines and products.**

"It's not to be missed for anyone, like us, who wants to convince their customers: not bits of paper, but data, figures, tests carried out on their products, with the coatings that they prefer", says Alexander Logachev, owner of LIGA. "In Russia there's increasing demand for quality; customers approach us with problems to be solved and we work with them. A few days ago we acquired a prestigious customer who has been awarded a major order for a five star hotel. They needed to clarify some aspects for special finishes: they stayed in our lab until late in the evening, but when they went home they had the solution to their problem".

Solving problems, giving precise, documented answers: this is what made LIGA

what it is today, a leading company with branches and dealers all over Russia and Belarus. Its turnover exceeds € 30 million, it always has 1,700 tons of products ready for delivery, a catalogue dedicated to the Russian market which grows by four or five products every quarter, often developed in cooperation with architects and designers in order to target market trends.

"We want to excel – claims Alexander Logachev – and by setting up this laboratory and working with Superfici and DMC we have achieved that: excellent products applied using the best technologies to obtain results whose performance can be scientifically tested and demonstrated".

The "Coating kitchen" laboratory is perfectly kitted out: dozens of machines and pieces of equipment, rarely matched in laboratories anywhere in the world, the possibility of carrying out any tests, from surface resistance to immersion in water, from the changes to products caused by enormous temperature changes, to simulation of exposure to the sun for five, ten and even twenty-five years. In the adjacent rooms there are machines

supplied by **Scm Group**, a kind of miniature factory with a Dmc System sander suitable for machining panels but also complex profiles, as well as a series of Superfici machines perfect for applying any type of finish: a **"Mini" spraying machine, conventional and 3D UV driers** for simultaneous polymerisation of coatings on the panel and on the edges, drying and gelation tunnels, a versatile "S4" roller filler that can also coat. All designed to be able to apply any type of product, from primers to top coats, water-borne or solvent-based, transparent or opaque...

"We're proud to be able to tell our customers that here they can find anything they need in order to make them more competitive", adds Logachev. "We now have a coating department that – thanks to the expertise and helpfulness of Superfici and DMC, which have worked with us for many years – allows us to say that at Fryazino there is an absolutely excellent centre!".

by **Luca Rossetti - Xylon**

THE NEW MINI PLUG & SPRAY SPRAYING MACHINE

easy and low cost

The Superfici Mini “plug & spray” is a compact spraying machine with an elegantly minimal design built to bring the quality and efficiency of the automatic spraying within the reach of every company, even small businesses.

ALL THE PROGRESS OF AUTOMATION Mini automatic spraying means continuous capacity output and quality consistency, combined with healthier working conditions for the operators.

FREE TO CHANGE SPRAYING RECIPE REPEATEDLY Flexibility, as the most varied flat or moulded pieces can be sprayed both on surface and edges, as the machine is easy to operate with small batches with frequent lacquer and colour changes.

MINI EVEN IN THE PRICE Limited investment, thanks to the competitive pricing and to the “plug & spray” concept; all of the items necessary for the machine operation are perfectly integrated in the machine structure

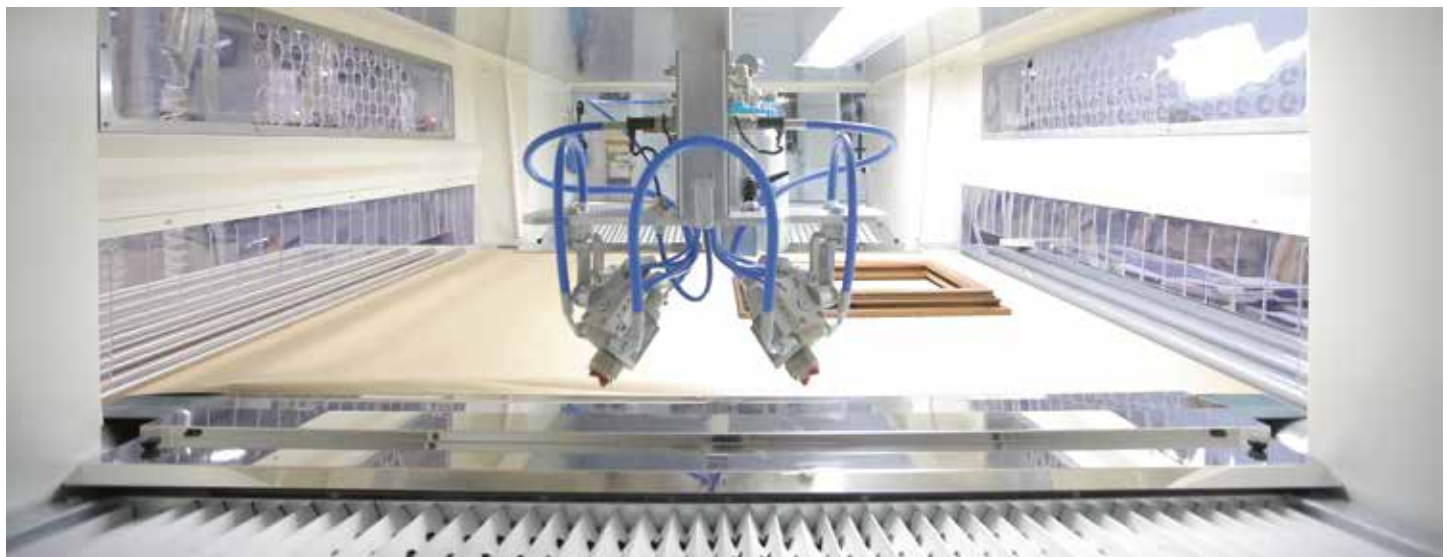


and this ensures low transportation and installation costs.

In order to grant the highest flexibility, the conveying system features a paper protection device, the ideal solution for operating in small batches. The paper is automatically unrolled and rewound at the work-piece through-feed and it protects the conveyor placed below and immediately absorbs the overspray.

The spraying arm is always equipped with quick connectors for the guns holding plate, thus making it easy to replace the plate with another, with a different gun setting.

SPEEDY CUP As an option, it is also possible to install on the spraying arm a small container to feed the guns instead of using a pump. It is in this way possible to spray in low pressure even with 2 litres of lacquer.



VALTORTA BRAVOROBOT 3D THE HIGH QUALITY SPRAYING ROBOT

Bravorobot, the spraying robot for panels, becomes 3D thanks to the innovative three-dimensional vision system allowing recognition of flat panels from those having discontinuities such as profiles and the detection of curved surfaces. This opens the possibility of applying dedicated recipes for the selective spraying of particular areas of the panel. Especially in the case of glue spraying, a function which usually requires the application of a greater quantity of product in the pantographed areas and on the edges. Or else when you need to create special old-looking effects, or for the accurate spraying of curved doors.

In conclusion:

FINISHES OF ANY KIND are easily obtained, by applying the correct spraying cycle for

each type of panel, thanks to an accurate and versatile software control and to the spraying arm with programmable positioning of the gun dedicated to edges and profiles.

HIGH QUALITY LEVEL using a 5 axis control, the robot performs the working cycle by simulating the finest manual spraying, but with the repeatability of an automated system.

The particular cabin and the pressurization and suction systems guarantee optimal spraying environment for high quality results,

even in case of particularly critical finishes or high gloss coatings.

AUTOMATION AND FLEXIBILITY The robotic spraying arm combines fast movement, due to the precision linear guides and the brushless motor drives, and high production capacity owing to the 4 guns dedicated to the spraying of the surface. High flexibility is granted by the edge gun.

ADVANCED AND EASY TO USE SOFTWARE

The operating software uses a PC with a simple and intuitive three-dimensional graphic interface. The working cycle is determined by re-calling pre-programmed macro-functions to build a recipe, which is then automatically and in a clever way adapted to the size and shape of the loaded pieces scanned at the machine infeed.

The pressurized cabin is extremely wide and guarantees a perfect ventilation in the spraying area.





SUPERFICI UV LED SYSTEMS

ONLY UV LIGHT

UV LED systems are the new frontier in the curing of UV lacquers. They open real application possibilities with their ability to reduce power consumption and eliminate any over-heating problem for the materials to be lacquered.

The new Superfici UV LED systems offer a wide range of LED solutions to be selected according to the different curing needs.

The diffusion optics applied by Superfici achieve perfect irradiation uniformity.

The "Touch Eco-logic" system controls each single driver and determines the power setting and the ignition of the involved working section.

Advantages:

- **HIGH ENERGY SAVINGS**

Up to 80% in savings when compared to traditional systems. Thus the installed kW is much lower, with considerable advantages both in terms of energy consumption and of costs for the supply units necessary for the plant.

- **LOW ENVIRONMENTAL IMPACT**

As UV LED's do not produce ozone, no air suction systems are required (suction systems are normally noisy and bulky). UV LED's do not deteriorate the machines on which they are installed, as they do not cause premature oxidation.

- **ON – OFF INSTANTANEOUSLY**

The LED generator has an instant start /stop and does not require heating or cooling time.

- **PROCESS WITHOUT ANY IR EMISSION (PURE COLD UV)**

The irradiation with UV LED does not transmit heat to the workpieces with considerable benefits when you work on heat-sensitive materials, such as pine or plastics.

Katiusha

Inspiring furniture finishing

Katiusha is a giant industrial group which manufactures furniture: originally a Soviet combine, today it is one of Russia's leading furniture companies.

That is an extremely narrow definition, because in reality the Dmi furniture factory (the brand under which it is known to the public) is much more. Not just "Design Mobili per Interni" (Interior Furniture Design), but a true integrated system, from the log to the finished furniture, via production of chipboard panels (Russia's biggest producer) with resins synthesised in the nearby structure. Not far away is the department where decorative paper is printed, the line for impregnation, lamination and preliminary machining. It's a world amongst the Bryansk Oblast region forests, four hundred kilometres from Moscow. On the other side of the town is the furniture factory and headquarters, built in 2003 over a period of 18 months. The industrial group consists of 20 companies, with more than 2,700 employees and a foreign turnover of € 45 million (outside CIS), although this was 100 before the recent rouble "crisis".

Every day at Katiusha around **1,500 pieces of furniture in 4,500 boxes** are produced, because it is a "flat pack" system. 18,000 square metres of warehouse, hundreds of trucks to be loaded and departing for the more than 400 points of sale throughout Russia, from Moscow to Vladivostok.

It's a constantly evolving giant: in a few months the kitchen production department will be inaugurated, a new 7,000 square metre factory. In two years the new factory to which panel production will be transferred will be ready: making 250,000 cubic metres per year, twice the current output.

Forty "collections", thousands of different items of furniture. Two product levels: DMI VERDE or "green" (double and single bedrooms,



HEADQUARTERS, WOODS AND SHOWROOM



KATIUSHA

(DYATKOVO, RUSSIA)
INDUSTRIAL GROUP PRODUCING
FURNITURE
IN AN ENTIRELY INTEGRATED PROCESS
FROM THE LOGS TO THE STORE
www.dyaktovo.ru



living rooms, entrance halls) and DMI ORANGE, the younger, more colourful variety.

*“We decided to work with Italian designers and we immediately saw the results: families come to our stores and really like what they find”, says **Sergey Avdeev**, the enthusiastic general manager of Katiusha.*

“Collections where the elegance of wood is combined with the eight colours that we very carefully selected. Impressive and inspiring. We are very pleased with this project”.

The designers aren't the only Italian feature: in the many departments of this huge factory there are dozens of machines made by **Stefani, Gabbiani, Mahros, Morbidelli**. Even the finish is “made in Italy”: colour is a central theme for Dmi, dealt with using a **Superfici coating line**: a double brushing machine, blowers and anti-static devices for perfect workpiece cleaning; an “F1” roller spreader; a “Selecure” UV drier, the “Bravorobot” 5-axis spraying robot, a vertical oven with four ventilation stages. A highly flexible, high productivity line, designed to be able to handle any coating requirements, using water-borne or polyurethane coatings, or direct polish.

“The finish is one of the values that the consumer perceives first. It's what immediately tells him if the piece of furniture is what he was looking for”, adds Avdeev. “We really focus on customer satisfaction, on supplying not just furniture, but a lifestyle, an atmosphere, for a better and more comfortable home. More than 60 per cent of our customers become regular customers... that's a great result, it shows that we're on the right track”.

Undoubtedly, that's partly thanks to Superfici!

by **Luca Rossetti - Xylon**

T H E S P E C I A L I S T

superfici



FURNITURE TECHNOLOGIES PRESSING, ASSEMBLY AND PACKAGING

Sergiani LAS 230

pg 64

CPC Pao

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Our Customers

Lesplitinvest (Russia)

CPC assembly line

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CPC packaging line

pg 68

Our Customers

QM (China)

CPC packaging line

pg 69

Joining, putting together,
optimising, finishing.
The final station in the process,
before going on the market...



OVER 40 YEARS OF UNIQUE PRESSING TECHNOLOGY

SERGIANI'S WORLD FAMOUS LAS 230 PRESS

The Las 230 is Sergiani's press with continuous cycle and electronic control for hollow core doors used by hundreds of satisfied customers across Europe and the world. A solution designed for large industrial productions with specific specifications to achieve:

HIGH PRODUCTIVITY LEVELS, UP TO 1000 DOORS PER SHIFT

The continuous cycle allows the **door to be loaded immediately after assembly**, eliminating waiting times and the risk of pre-catalyzation of the glue. While a door is being loaded/unloaded from one opening SERGIANI's patented system **maintains the pressure constant on the other openings, thus reducing down times and allows the use of FAST DRYING GLUES** to further increase productivity.

High speed: up to **1 cycle every 20 seconds**, equal to one or two doors every 20 seconds.

QUALITY PRESSING

High thermal performance platens, featuring SERGIANI's exclusive design, allow for a **reduction of the pressing times**, also with **low temperatures**, whilst maintaining productivity levels and pressing quality high.

Moreover, the Las 230

presses one door per opening, thus eliminating marks and gluing defects due to the thickness tolerances of the components.

SPACE SAVING

Compared to single or multi opening presses with simultaneous loading, the LAS 230 with continuous cycle **reduces the space occupied by the line by a third**.

GREAT GLUE VERSATILITY

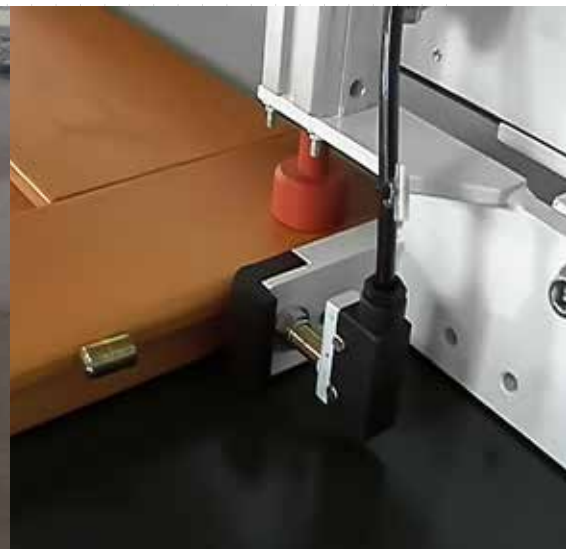
LAS 230 uses a wide range of high-performance water-based glues such as Ureiche (U), or vinyl (PVAc), liquid EVA or PUR.

Line control and production management software order by order, with barcode or RFID.

SERGIANI produces a **vast range of complete systems** for assembling and pressing hollow core doors: semi-automatic or completely automatic lines, without operators, for **large batches and "Batch 1" productions**.



“PAO 2500 S” CPC CONTINUOUS FLOW DOOR ASSEMBLY



Pao is CPC's solution for the horizontal assembly of solid wood interior doors that allows for high productivity levels with minimum operator intervention.

The pluses of this solution:

INCREASE IN PRODUCTIVITY LEVELS, ALSO WITH DIFFERENT-SIZED PRODUCTS, by eliminating the usual set-up times of vertical presses with manual loading and unloading;

REDUCED OPERATOR INTERVENTIONS, by eliminating the loading and unloading operations required by vertical presses;

PRE-ASSEMBLY IN MASKED TIME, whilst the previously prepared product is processed by the machine.

The CPC assembly solution consists of:

- **Motor-driven automatic tip-over vertical pre-assembly bench**
Press work position height increased from 550mm up to 850mm, to allow the operator to work in an ergonomic position.
- **AUTOMATIC FRAME PRESS FOR “PAO 2500 S” DOOR ASSEMBLY**, with hydraulic operation, designed to assemble interior doors with 45° and 90° joints without further set-up operations.

The hydraulic devices are constructed with technical specifications that guarantee extremely low operating noise levels. The thrust force can be adjusted in a differentiated and variable way based on the type of door being assembled. The 2 intermediate uprights are hydraulically operated to ensure high pressures on any door crossbars and they are fitted with a motor driven translation device so that they can be positioned with the joystick located on the control panel.

THE RUSSIAN GROUP

The Russian Lesplitinvest Group

Making doors with the most advanced
“know-how”



PRODUCTION SITES

The company Lesplitinvest (in the Leningrad and Moscow oblast - autonomous region), is part of the SOUZ Industrial Holding Group and one of Russia's leading MDF and interior door manufacturers. It recently purchased a second new CPC assembly and packaging line which allows high levels of productivity and minimum operator intervention.

Established in 1929 as a paper mill, in 2004 it began producing MDF and since 2008 it has been making doors for interiors. Over the last decade Lesplitinvest has grown and invested in technology to expand the collection of models of doors it can supply to the market: more than 40 models, with or without glazing, having various designs and 18 decorations. Lesplitinvest doors stand out for the variety of decorations and because they are ready to fit without any further "working", since they come complete with casing, jamb, glazing bead, all having the same decoration. That puts the company ahead of its competitors!

Making door production more competitive (Lesplitinvest annual production of doors for interiors is 350,000 units) **with a collection that's continuously developing** is the requirement that was brilliantly satisfied by the second CPC automatic line for assembling and packaging doors for interiors. Let's look at the details.

The new integrated solution for continuous flow production is a largely automated process based on the following steps:

- **double assembly line for doors with PAO 2500 S model horizontal clamp**

The double line is made up of a vertical pre-assembly bench with motor-driven automatic tipping and the Pao 2500 S automatic clamp.

The PAO 2500 S model clamp is fully automated, that is to say, it positions itself with the correct dimensions as the door arrives, adapting to the door measurements. This eliminates any manual positioning, for small batch processing with high productivity.

- automatic conveying of assembled doors on the line for manual insertion of hardware/gaskets and final "quality check" position
- transversal automatic packaging line using cardboard corner protectors and heat-shrink polyethylene

Why Lesplitinvest chose the CPC line:

DOUBLE THE PRODUCTIVITY AT THE ASSEMBLY STAGE,

even with products having variable dimensions, thanks to zeroing of set-up and handling times typical of vertical clamps with manual loading and unloading.

IMPROVED PROCESS CONTROL through full integration of the product assembly, finishing and packaging stages.

DRASTIC REDUCTION IN DOOR HANDLING, meaning **optimisation of spaces within the working area** and **saving of cycle times** due to elimination of intermediate processing buffers.



LESPLITINVEST

(OBLAST DI SAN PIETROBURGO, RUSSIA)
PRODUCER OF MDF PANELS AND INTERIOR DOORS
<http://lplit.ru>

THE NEW CARDBOARD BOX PACKAGING SOLUTION:

**Variable size of parcels are
no longer a limit!**



CPC presents a new concept of packaging in cardboard box which allows high productivity and automation with minimal operator intervention.

This solution is suitable for customers who need to manage big volumes of production on a batch one basis, like kitchens, bathrooms and living rooms industries.

GREAT PRODUCTIVITY EVEN WITH VARIABLE-SIZED PRODUCTS (BATCH ONE),

minimizing the number of operators needed.

CARDBOARD CONSUMPTION OPTIMIZATION

This solution reduces the space required for storage of cardboard, and its handling. On the other hand, allows you to maximize the flexibility of work in terms of dimensional variation of the product, having the necessary size box in real time.

BETTER QUALITY OF FINAL RESULT

First impression is the product packaging so neat, exquisite and firm packaging to enhance corporate image. Traditional hand folding cartons, non-standard corner rough, internal work loose, are easy to cause the damage to the goods during transportation process.

The solution is an entirely automated process, which includes these stages:

- Automatic dimensional measurement of product (single or in kits);
- Automatic preparation of its cardboard box, with consumption optimization;
- facilitated preparation of the box and its operators fill;
- automatic closing of the box with hot melt glue.

QM

China's leader in the field of stylish furniture, has chosen SCM Group to ensure highly integrated production with a strong automation element



T H E S P E C I A L I S T



QM has recently purchased the new packaging line from CPC - a well-known brand of Scm Group - to guarantee excellent productivity whilst minimising the operator's interventions.

The relationship between QM (Beijing) (www.qumei.com) and SCM Group is based on mutual esteem built up over the years. The widest range of top class Italian technology for panel machining has allowed the Chinese company (known for its ability to offer select products with a modern design) to acquire an enviable position and image amongst Chinese furniture-making companies. QM (Qumei Furniture) is one of China's foremost furniture manufacturers, creator of a winning formula that combines design (one of the first Chinese brands to establish a partnership with international designers), ground-breaking production plants (currently 6 production poles for a total area of 800,000 sq.m), and over 600 exclusive retail outlets.

QM's choice of SCM Group technology is an all-round one: Gabbiani panel saws, Stefani edgebanding machines, Morbidelli and SCM

processing centres for boring/milling, and DMC sanding machines.

It's the latest purchase though - an automatic CPC line for packing the panels in boxes - that clearly indicates the notable request for all-round automation from the Chinese market. Let's take a look at all the details.

The main advantages of the CPC packaging solution:

Flexibility and Efficiency, it can be used in mass production mode and also in customization production mode. QM have more than 10 thousand size work pieces, it was difficult to buy hand made or buy from another supplier. This packing line can process all of this quickly saving time and maintaining flexibility.

On the basis of a three month period, this packing line has packed 1200 pieces /day (work time 8-10 hours);

Cost efficiency, this line needs only 8-10 workers when before it required 25-30 workers;

Standards, all of the products are packed

neatly and the entire workshop is managed regularly and orderly, looking neat and clean. During the packing operations, incidents of missing parts is greatly reduced;

The customers' first impression is the product packaging **a neat, flawless and firm packaging**, a great improvement from traditional hand folding cartons, non-standard corner rough, internal loose probably causing damage to the goods during transportation.

Very easy to transport, straightforward stacking, neat packaging, breakage rate reduced, and a cargo load superior by 10-15% per vehicle.

QUMEI FURNITURE GROUP
(BEIJING, CHINA)
FURNITURE PRODUCER
WITH OVER 600 STORES
www.qumei.com

SCM GROUP

Software solutions

Expand your creativity

Open to the future of manufacturing...
Furniture, doors&windows,
Timber constructions, advanced materials

Software means evolution, development of the way we work with machines and systems.

Opening up new frontiers, making new projects possible effectively and easily. Those involved in production no longer need to be familiar with sophisticated technology programming, because all of the know-how is contained in the software.

HOW TO CHANGE YOUR TECHNOLOGY LIFE

An advanced system of software dedicated to all of the different machining technologies, for a fully integrated software experience!

Watch



WATCH

Your production process controller

WATCH supervision is designed for use in complex automation processes, to centralise and simplify system management. That means optimising production changes, reducing tooling times, programming all machines involved in the process in an integrated, modular way with reports and advanced diagnostics.

WatchStore



WATCH STORE

The best sizing formula

Watch Store is the new software that allows real time control of the store status, integrating with the operating, sizing and numeric control machines for optimised management of the production process.

WinCut

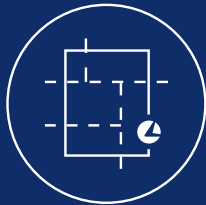


WINCUT - OTTIMO CUT

The best sizing formula

Ottimo Cut is the software for **optimising cutting plans**, allowing their automatic creation, optimising the solution using parametrisation that easily adapts to user requirements.

OttimoCut



WinCut is the software for **managing the sizing process** on the machine at both the program creation and execution stages, through the interface connected to the machine PLC, with clear, detailed graphical information for the operator.

E-Touch



E-TOUCH

Easy edgebanding in full control

E-TOUCH is the powerful application that allows the **programming and supervision of edgebanding machines** in a surprisingly fast, intuitive way, thanks to the 3D virtual preview and the can-do philosophy.

QuickLink



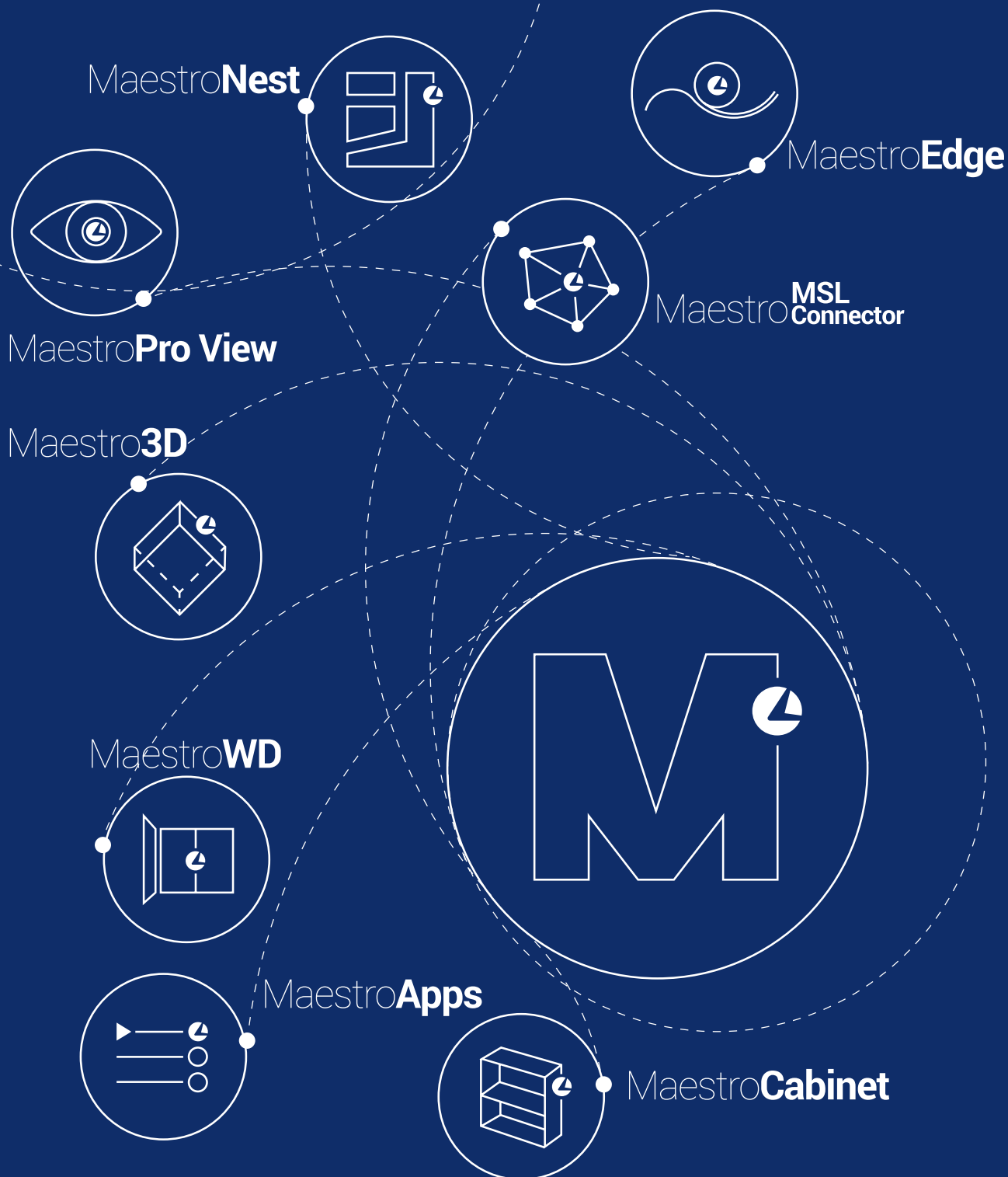
QUICKLINK

Build your wood solutions

QUICKLINK is the 3D manufacturing software for **wooden structural work**: an intuitive interface that combines easy data entry, rapid processing and simulation and great flexibility thanks to the different machining strategies. Integrated with the new **NESTING functions** for x-lam (cross-laminated timber) walls.

Xilog**Maestro**

A unique suite



A software suite for the widest range of numerical control machining centres on the market today

MAESTRO

Expand your creativity

CAD/CAM programming software to design all the production processes.

MAESTRO 3D

Shape your mind

The module integrated in the Xilog Maestro suite is designed to program three dimensional objects on 5-axes machining centres.

MAESTRO PRO VIEW

Take advantage of 3D reality

3D Simulator that allows users access to a three dimensional model of their machine in their office and view the operations that will be carried out during the production in advance on their PC.

MAESTRO EDGE

Make edgebanding easy

The suite allows users to manage the routing, boring and treatment of the edges of shaped panels and components.

MAESTRO CABINET

Design your furniture

This application is designed for the home and office furniture sector to design furniture and program cabinet production step by step.

MAESTRO APPS

Exploit our know-how

Maestro APPS is a library of programming functions that are always available and easy to use, developed by the SCM Group for the production of parts for doors, windows, stairs, furniture and furnishings.

MAESTRO NEST

Optimize your production

The module integrated in the Xilog Maestro suite provides all the functions necessary to manage the "Nesting" process: from a simple "rectangular" piece to the most varied and complex "free form" geometrical shapes.

MAESTRO WD

Choose your window

The application included in the Xilog Maestro suite is designed for planning and programming each single part of linear and arc-shaped windows, doors and shutters.

MAESTRO MSL CONNECTOR

Connect your production to the world

The Xilog Maestro suite features the MSL Connector which allows external softwares to interface with all SCM Group's machining centres and makes it easier to manage the machining strategies.



DOOR AND WINDOW TECHNOLOGIES

SCM Accord 25 fx pg 76

SCM Topset XL pg 77

Our Customers

Traditional Sash Windows
(United Kingdom)
SCM Accord WD pg 78

Our Customers

Melgari (Italy)
SCM Accord WD pg 80

Our Customers

Wang Mei - ITD Group (China)
SCM System 5, Domino pg 82

Safety. The boundary of a home.
Privacy, comfort, warmth, silence.
A door, a window that is beauty,
style, design...

ACCORD 25 FX



High technology and utmost ease of use for the latest SCM machining centre

The latest **Accord 25 FX** model was designed with the needs of small and medium-sized companies in mind. **SCM has developed a 5-axis machining centre that provides utmost performance with minimum investment.**

Accord 25 FX, available with bars table and multi-function table, combines state of the art performance with extreme ease of use for flexible productions of doors, windows, stairs, solid wood parts, wooden and extra-wooden panels.

VARIED PRODUCTION With Accord 25 FX is possible to produce various types of products thanks to the increased machining dimensions and 44 tools always available on the machine. The new chain store, combined with the traditional lateral store, guarantees fast tooling times and the machining of many different profiles.

ERGONOMICS AND SAFETY The new "ProSpeed" system with horizontal photocells and new bumpers on the mobile protection (SCM patent), combines **maximum accessibility to the work table and safety for the operator** in the work piece loading/unloading operations, whilst maximum speed and productivity are reached during machining.

SMART PROGRAMMING Thanks to the **Xilog Maestro software suite developed by SCM, programming Accord 25 FX is easy, intuitive and effective.**

The **Maestro 3D** module allows the programming and 5-axis machining of three dimensional surfaces; **Maestro WD**, developed specifically for the production of door and window frames, allows users to design starting from the architectural light to the individual frame elements to be produced.

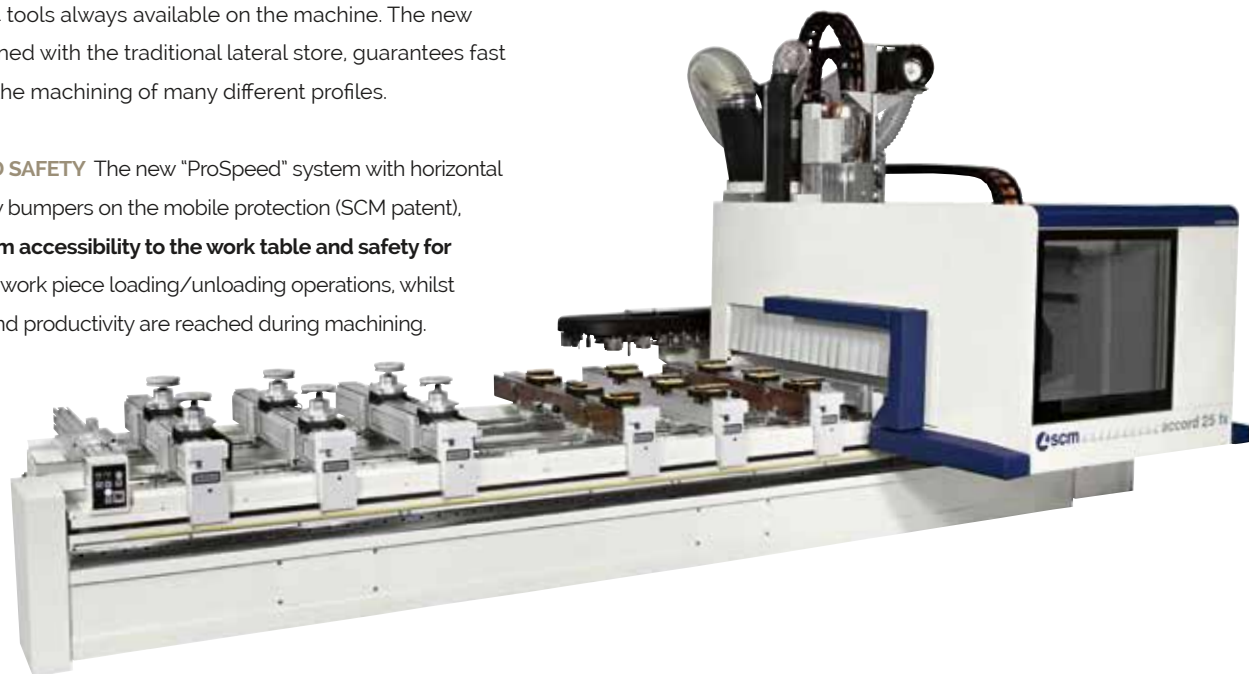
The **Maestro Pro View** simulator provides clients with considerable advantages by previewing the actual machining to be carried out in the machine on the office PC, in order to eliminate any errors and collisions and calculate production times and costs.

The **Maestro MSL Connector** module allows external management software to interface with Xilog Maestro. The machining strategies are managed on the dimensions of the work pieces and the operations to be carried out, in order to optimise the position of the blocking systems and the tool paths.

Furthermore, **the Xilog Maestro software of Accord 25 FX includes Maestro APPS:** a library of functions developed by SCM thanks to the experiences matured with the manufacturers of windows, doors, stairs and furniture. The Maestro APPS functions are immediately available, simple to use and allow clients to save time when designing the work piece.

Accord 25 FX brings together the best of the Accord series SCM machining centres, that with the Accord 30 and 40 FX and FX-M models have been internationally appreciated and acknowledged for their **technological pluses, reliability and versatility.**

The highly modular aspect of the range is what makes the "**Accord 25 fx**" project unique. It is available in various configurations to provide different work tables, such as "Matic" with automatic setup, high performance machining heads, tool store and innovative blocking systems, to promptly respond to the various market requirements. This model allows us to provide a truly **made to measure machine for clients** that either purchase machining centres for the first time or for expert clients that want to improve their competitiveness.



TOPSET XL

The top of the range SCM throughfeed moulders

The Topset XL electronic throughfeed moulders are designed to produce prismatic profiles, frames, profiles and linear parts for windows, doors and furniture. **The range features a large number of options to produce high quality finished products with exclusive shapes.**



GREATER PRODUCTIVITY The patented **"SET-UP" system** allows for tool changes and adjustments that require just a few seconds, for faster tooling times. This ensures that it can meet the demands of very flexible productions with increasingly smaller batches, whilst keeping productivity levels high.

EXTREME VARIETY IN TERMS OF PROFILES Machine composition from 6 to 10 spindles, high axial strokes, increased stock removal depth and HSK technology: these technical specifications allow for a high level of variety in terms of profiles and therefore highly diversified productions.

USER-FRIENDLY ELECTRONIC CONTROL

The new **WATCH supervisor**, developed by SCM, allows for simple and complete control of the machine. Clear and precise graphics guarantee ease of use for the operators assigned to programming, reports and alarms. The technical skills required are lower and the management times reduced.

SCM's experience, matured over the years by collaborating with international clients with the most disparate requirements, has allowed us to develop innovative solutions. We have recently supplied Topset XLs with 10-spindle compositions, fitted with electronic positioners on each machine axis, speedily interchangeable spindles with HSK 85S tapers, electronic guides and many other specific options such as **tables with micrometric machine outfeed adjustments** that allow stock removal operations with the last horizontal spindle. These custom solutions have fully met our client's expectations.



HIGHLIGHTS

- Minimum machining section **15x6 mm**
- Maximum machining section **260x200 mm**
- Axial strokes for **80 mm** for vertical spin, **45 mm** for horizontal spindles
- Profiling capacity **60 mm**
- Feed speed up to **60 m/min**



Flexible door and window production
Two success stories with Accord WD

From the English Traditional Sash Windows

TRADITIONAL SASH WINDOWS

(GUILFORD, UNITED KINGDOM)

TRADITIONAL ENGLISH WINDOW
PRODUCER (SLIDING AND SHUTTERS),
www.traditionalsashwindows.co.uk

Traditional Sash Windows based in Guildford, Surrey, have been manufacturing, supplying and installing traditional sash and casement windows since 1999.

During this time they have completed a large variety of installations, supplying over 50,000 replacement windows plus refurbishing existing sash windows.

Traditional Sash Windows is very much a family business, started by Chairman Paul Kitching, and run by Matthew Lord, Managing Director, and Jamie Kitching, Director, with their close team they are responsible for the growth and day to day running of the business.



As the business is flourishing and production volumes are increasing, at the beginning of 2014, it was decided to examine the purchase of a CNC Machining Centre with a 5-axis routing head, to machine all window and door components in one location on the CNC's table.

At the Scm showroom in Rimini. Paul Kitching found out in detail how the Accord WD machining cell performs: an integrated production system, created through the long standing experience SCM has in the door & window manufacturing, with completely automated loading and unloading system.

The Accord WD can be used for **production in batches and in single units without ever interrupting the work cycle** and always

feeding at the maximum speed. It is easy and fast to use and also with manual loading to produce any type of component and therefore exploit all the potential of an SCM Machining Centre. The automatic component movement system and the worktable management ensure that the continuous presence of the operator is not necessary.

The 5-axes machining unit, designed and constructed specifically for demanding jobs, is supported by a rigid mobile gantry-type structure for fast profiling of large section elements. The table / machining area is 6360 x 1905mm. **The work cycle is never interrupted**, while the machine is machining on one half-table the finished components are unloaded from the other one and new ones loaded.

Machining special door and window frames

or other types of products is extremely simple as the worktable can easily be accessed for manual loading and unloading. Maestro WD parametric software developed by the SCM Group to design and produce door and window frames on machining centres. It supports the design requirements of the most common types and geometric shapes of door and window frames, both linear and curved.

Paul Kitching concludes "We are very pleased with the SCM Accord WD and can **see the benefits of the machine**, especially **the quality of the finished components and the machining of rounded edges**. At the moment we are set up for sash window production and eventually we will move on to door production."



STABILIMENTO TRADITIONAL SASH WINDOWS CON ACCORD WD IN FUNZIONE

From the Italian Melgari

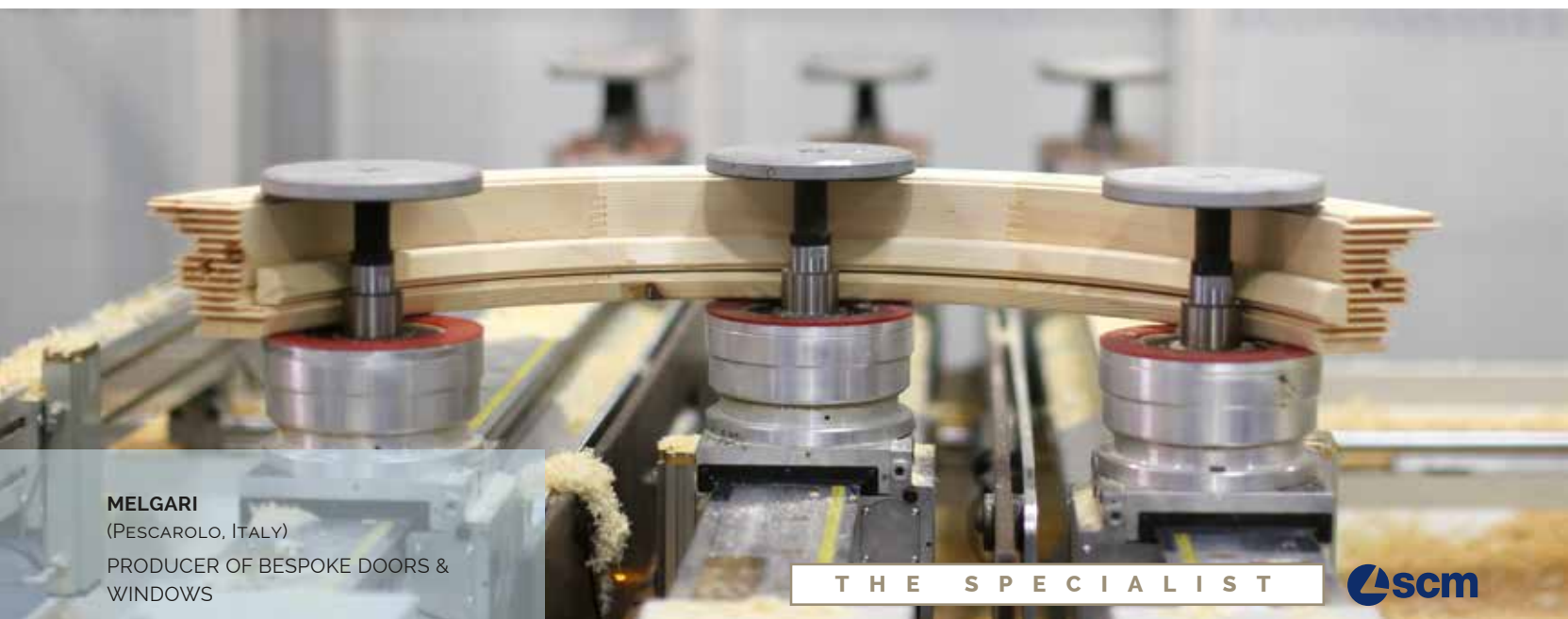
With a single machining centre boasting excellent performance, Melgari of Pescarolo (Cremona province) is still a match for a market that demands production of just a few items that have to be of top quality.

The history of Pescarolo-based **Melgari**, in Cremona province, is the classic example of the "made in Italy" family business. Present on the market for four generations, it started out as "local" joiner's shop. In the '60s Melgari discovered the vocation for **doors and windows**, still keeping in its DNA a passion for product innovation and final quality. Today the company is led by Nicola, who has worked alongside his father Amilcare for some time.

The company always pays great attention to technological innovation, guaranteed by the longstanding partnership with Scm Group, and the advantages guaranteed by software suited to the company mission.

Mr Melgari, nowadays the fortune of a door and window manufacturer depends on production choices...

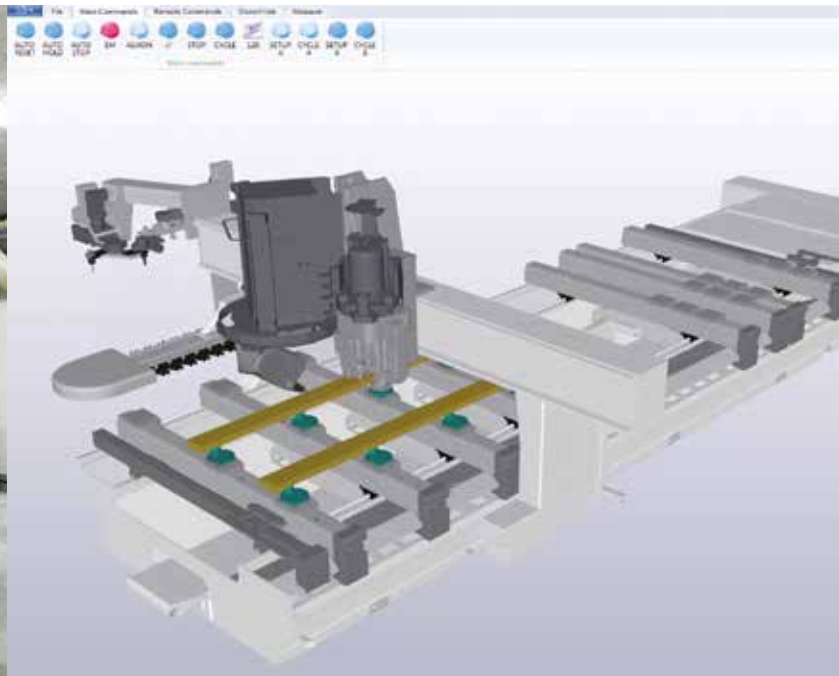
"The big step forward that allowed our company to keep going in this difficult market situation was definitely the introduction of **a new way of making doors and windows**, based on highly innovative technologies: **powerful, flexible software, "Xilog" Maestro**, for integrated process management and an **Scm Group "Accord WD"** machining centre, whose size change-overs and tooling have practically no effect on machining times."



MELGARI
(PESCAROLO, ITALY)
PRODUCER OF BESPOKE DOORS &
WINDOWS

T H E S P E C I A L I S T





ACCORD WD WITH XILOG MAESTRO SOFTWARE ON THE MELGARI PRODUCTION LINE

Are you saying that you've basically automated your factory...

"We decided to **make automation a big part of our process**. Our SCM "Accord WD" machining centre has an automatic loading and unloading store, meaning that it can operate unmanned – you could say automatically... – for several hours. It's basically a **machining cell**, which has let us really focus on versatility and precision machining of every profile, which can be done in two steps. The store, which Scm Group technicians designed for us, allows us to load workpieces with a maximum length of 2,500 mm, with an unmanned machining time of more than one hour. One feature that is very important to us is the **possibility of easily extending the cell in future**. Depending on our requirements or if the market becomes more favourable we may want to act to **increase productivity**".

How important is it to have specific software for door and window production?

"For us "**Xilog Maestro**" is a convenient, powerful, versatile interface with the "Accord WD" machining cell and the entire robotised loading and unloading system. It's really easy to control every operation "in the machine", whatever we have to do, from routing a profile to machining a complex 3D surface. As for design and instructions linked to door and window production, we work with specific software supplied by DDX. **Design with "third party" software** is managed without any problems by the machine, thanks to the "translation" which "**MSL Connector**", the Scm Group proprietary software, performs by collecting all of the data needed for any machining and managing the machining centre's automatic worktable. **It's a huge step forward** compared with when the process of positioning workpieces on the

machine and hold-down clamps was less flexible and much more difficult for the operator".

So? What can be done?

"We wanted to create a cell for doors and windows, a complete machining centre that produces profiles ranging from 68 to 98 mm. **Technology has changed production**, greatly speeding up some steps, with fewer people involved. I must admit, those decisions were hard, but they had to be taken in order for the company to survive. The crisis saw our output fall from 1,700 to 1,000 doors and windows a year. We're focusing on versatility, on the **possibility of making sixteen models of window with a single machining centre**. At the moment we process 8-12 windows a day: the advantage of our "Accord WD" cell is that it never stops, even during loading and unloading. The worktable has 6.30 m of working space, so if the machine is machining on the left-hand worktable, on the right-hand side we take advantage of the automated loading and unloading. We also use the cell to machine solid wood or hollow core doors and even modules for **curtain walls** used in the construction sector.

Technology is an opportunity, often the only one. We've always believed that, since the '60s, when my dad bought the famous Scm "System 1". We have always invested in technology since then, following the development of demand, diversifying production.

by **Luca Rossetti - Xylon**

System 5

Wang Mei Wooden

WANG MEI WOODEN WINDOW

ITD GROUP

(BEIJING, CHINA)

LEADING INDUSTRIAL GROUP OF CHINESE GLASS, DOOR & WINDOW PRODUCER



WANG MEI WOODEN WINDOW FACTORY WITH SCM SYSTEM 5 LINE

“THE SEARCH FOR A BRIGHT FUTURE” with an SCM Group maxi system for doors and windows This is the meaning of “Wang Mei”, the name chosen for Wang Mei Wood Window, a company owned by China ITD Investment Co. Ltd., a true giant of the Chinese glazing industry. It was one of the first to propose low emission glazing, showing great attention to environmental performance and issues. Wang Mei – with headquarters in Beijing and two production sites, in Tianjin and Hebei – in just a few years has achieved a record size and record production. Its aim is to supply a market experiencing strong growth with top quality wooden doors and windows, with “European” standards, able to guarantee excellent performance in terms of insulation, comfort, quality and performance.

T H E S P E C I A L I S T

scm **superfici**

Window – ITD Group

“Everything that we do has to support maximum quality”, says Yao Jianlong, General Manager of Wang Mei Wood Window. “We’re convinced that windows are the eyes of a home and it’s through them that people perceive the beauty of life. This is why we pay maximum attention to quality, to the materials we use, to the hardware – which we import directly from Germany – and, obviously, to technology”.

Everything aims for perfection, to ensure customer satisfaction. We guarantee the rapid substitution of old doors and windows, without damaging walls. We provide a three year guarantee and arrange regular visits to check that product efficiency remains unchanged. We target the top end of the market, which means not focusing on aluminium doors and windows (90 per cent of the market). We prefer to support the philosophy, aesthetics, comfort, beauty, performance and environmental sustainability of wood.

Today more than 500 million square metres of doors and windows are made in China, but wooden windows are a “luxury” item, increasingly appreciated in a very rapidly changing market. China is also seeing a rise in the number of people who don’t want mass produced items, preferring high quality customised products. This is one of the reasons why Wang Mei chose Scm Group, for the certainty that the Italian group’s technologies guarantee flexible, high quality production, at the same time maintaining high levels of productivity.

In March 2014 the Chinese giant decided to invest in **two “System 5” integrated lines** made by Scm Group and it became the first company in China to use top level technologies for flexible door and window manufacturing, setting a new benchmark in the sector in China. For **Wang Mei Wood Window** SCM Group is a single, highly specialised supplier, able to cater for all production requirements thanks to the huge and varied range of technologies it offers. In addition to the two System 5 lines, at the ITD Group factories they use the “SCM Accord 40 fx” machining centre, the “SCM Supersent” automatic throughfeed moulder, the “SCM Domino” angular machining centre and two Superfici finishing plants. The complete SCM Group supply also includes machine installation, technological tool supervision, management software and highly qualified personnel with sector-specific experience. This

“

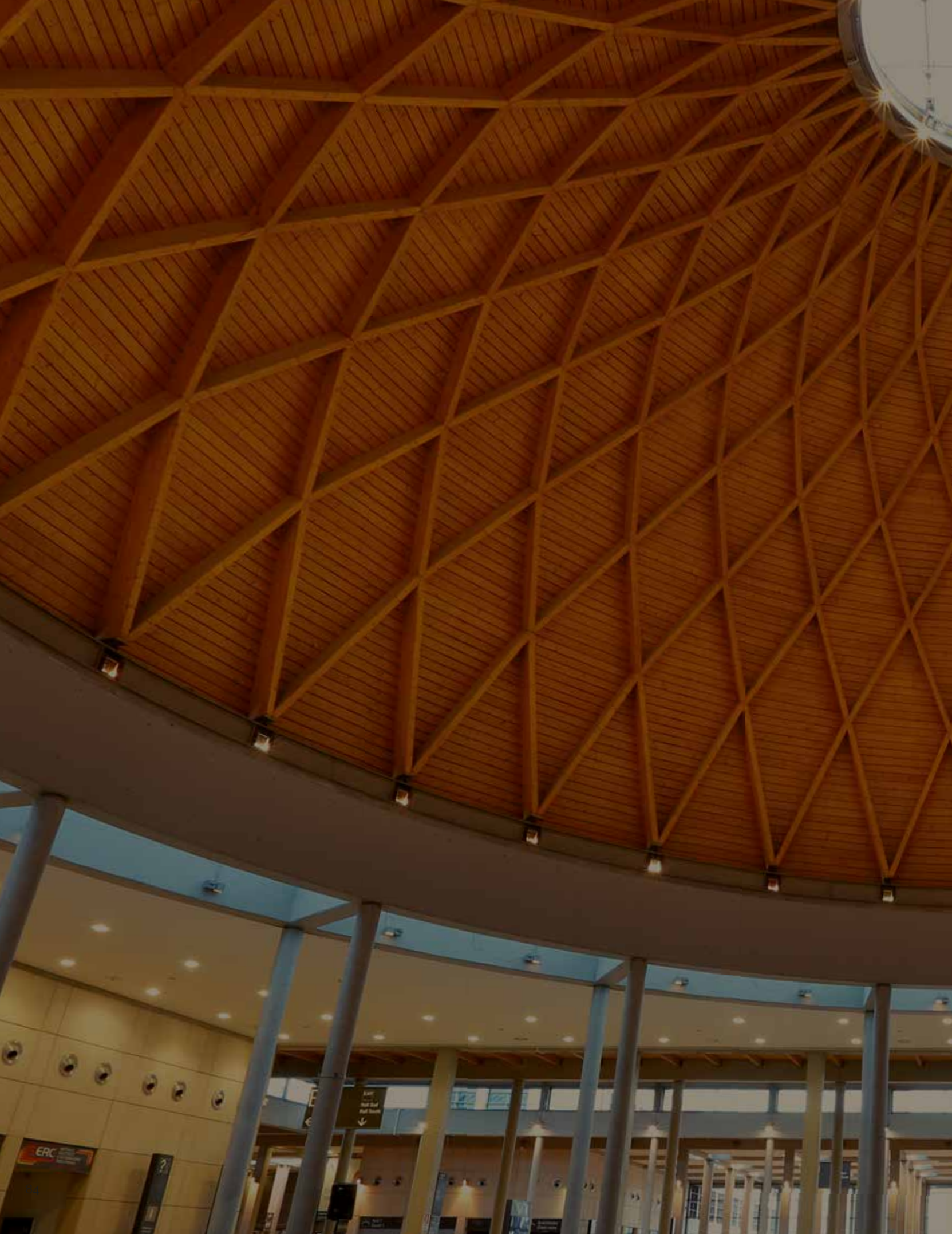
My sixth sense immediately told me that working with Scm Group would bring success to both of us”. “We’re talking about a major manufacturer with a great deal of experience world-wide, which has worked with many door and window manufacturers and for us this means being able to rely on a great resource.

”

YAO JIANLONG,
GENERAL MANAGER WANG MEI

meant that the factory could be set up to make 250/300 windows per shift, European type IV 68, IV 78 in wood and wood/aluminium. The whole production process for doors and windows was designed and taken care of right down to the last detail by SCM Group.





TIMBER CONSTRUCTION TECHNOLOGIES

Routech Oikos and Area

pg 86

Our Customers

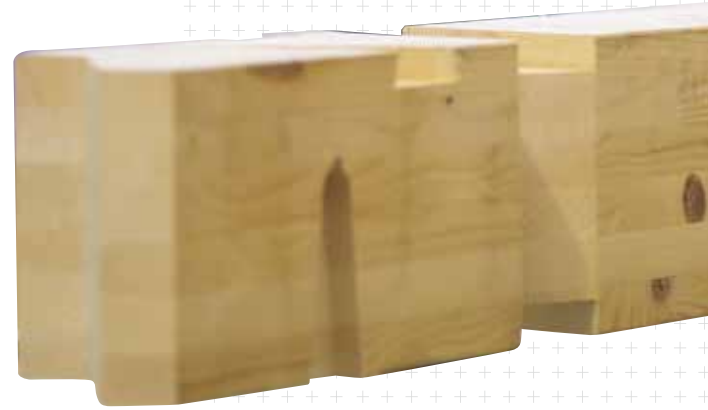
Fleischmann (Germany)

Routech Oikos and Area

pg 88

Wood. All around.
A house built of wood.
The sound, the warmth, the
perfume of wood...

A NEW WAY OF WORKING INNOVATIVE TECHNOLOGY FOR MACHINING STRUCTURAL BEAMS FOR TIMBER CONSTRUCTIONS OIKOS – AREA



The market for wooden homes is constantly growing not only in Europe but in the rest of the world too because of the **economic advantages of using wood**. Wooden constructions have many advantages not only in **economic terms but most importantly in terms of ecology and sustainability**.

Routech has placed its decade's worth of experience in the development and production of highly evolved and flexible work centres at the service of the building industry to create a new standard for machining structural beams in wood.

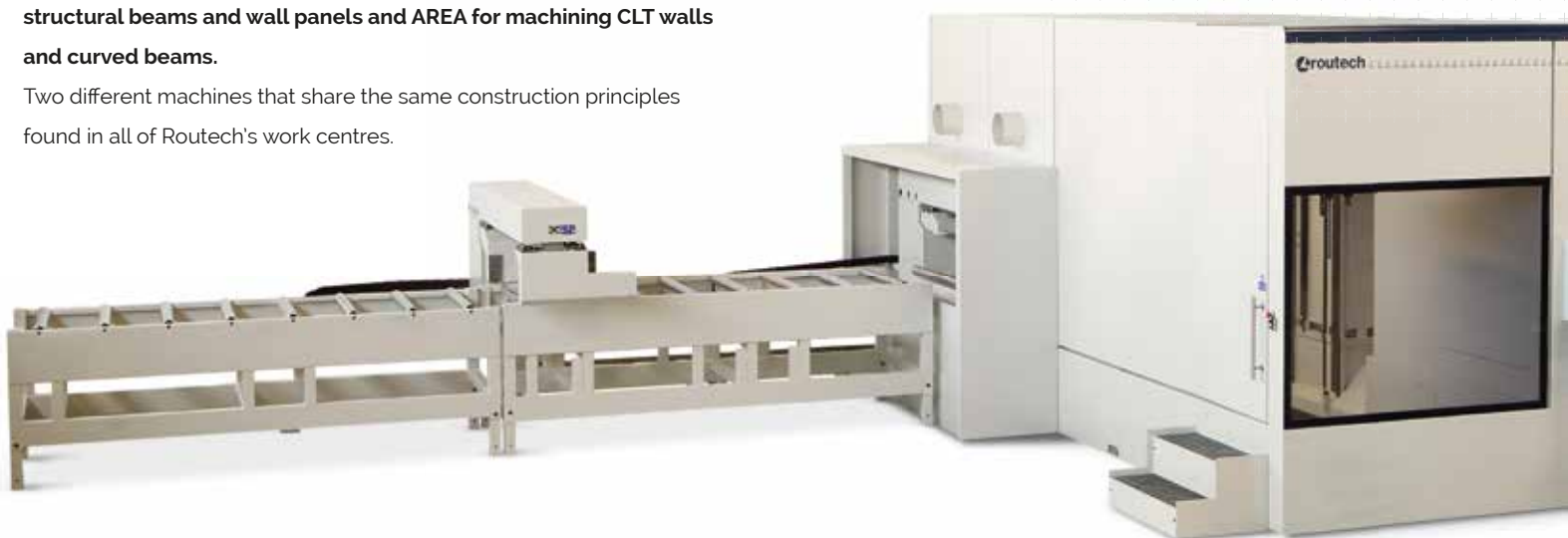
This has resulted in two important projects: **OIKOS, for machining structural beams and wall panels and AREA for machining CLT walls and curved beams**.

Two different machines that share the same construction principles found in all of Routech's work centres.

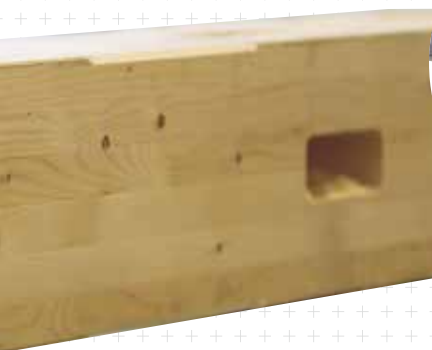
INNOVATION Both work centres are fitted with **machining units specifically designed to maximise performance in terms of space, dynamics and power**.

Six axes on the OIKOS unit result in a stiffer machine configuration and ensure maximum performance and productivity.

The AREA spindle features power up to 30kw, to perform any type of machining, with maximum stiffness in any condition and the use of blades up to 1050mm in diameter and saws with a useful cutting length of 480mm.



INNOVATION



PRECISION



FLEXIBILITY



SIMPLE AND QUICK TO USE



ORDER PROFITABILITY



PRECISION Oikos consolidates the **machining on 6 sides of the workpiece technology without having to turn over or reposition the beams with a maximum width of 1250mm and thickness of 300mm.** This improves precision as the beam can go directly from the machine to the site without the need for any manual adjustments. Area, thanks to the **innovative solutions employed in the supporting structures, allows extremely precise machining on parts longer than 50 metres.**

FLEXIBILITY The unique configuration of Oikos and our continuous development, allow the machine to be used for machining operations that are not normally managed by this type of work centres, such as cutting **insulation panels and threading lamellar beams.** **The new solutions developed for the Area work table allow the complete machining not only of walls, but also of curved beams and thin panels.** The former are machined on a suction cups table whilst the latter use aluminium multi-purpose table modules that can be integrated in the table.

SIMPLE AND QUICK TO USE The success of machines for structural work is dictated by the effectiveness of the software that is developed and constantly updated internally to ensure it is in line with the design standards of wooden constructions. This led to the development of the **V.2 version of Routech's Quick Link software,** in order to achieve maximum speed and ease of use: **a single program that allows access to the programming, program execution and tool management environments.**

The nesting function to machine wall panels is now also available for Oikos: the new Quick Link can now import .btl format files generated for nesting machining in order to optimise the use of the material and reduce waste.

ORDER PROFITABILITY As with all SCM and Routech work centres, Area and Oikos are both available with the **new "Preview" simulation software developed by SCM Group.** The simulator lets you simulate on a normal office PC all the machining operations before starting the production with real life production times.

Fleischmann Holzbau

Where Rotech is at home....

FLEISCHMANN

(KULMBACH, GERMANY)

PRODUCER OF ROOF AND WALL ELEMENTS
FOR PREFABRICATED WOODEN HOUSES

www.holzbau-fleischmann.de

T H E S P E C I A L I S T



Kulmbach is the capital of the Bavarian district of the same name. Plassenburg castle, famous for containing the world's largest collection of tin soldiers, dominates the woods and forests. It is in Frankenwald, the Franconian Forest, where wood is abundant... No doubt the surroundings were an important factor in the Fleischmann family's decision to make timber their business, first by just installing wooden structures, then, in 2013, working wood, starting to produce elements for roofs, facades and prefabricated houses. With a turnover upwards of € 9 million, it has around eighty employees, of which only ten in production, the rest on sites, handling installation. So, just a handful of workers for extensive production, from residential to public, switching between small and large industrial or artisanal structures.

It's easy to see why: **Harald Fleischmann** decided to build a modern factory, made entirely of timber, for producing beams, cross laminated panels and for covering, with „made in Scm Group“

“ With Scm Group machines we threw open the doors to a new era for our company – concludes Harald Fleischmann – certain that we can meet any requirements that our customers may have in future! ”

HARALD FLEISCHMANN



HARALD FLEISCHMANN WITH HIS ASSOCIATES AND LUCIANO TAGLIAFERRI SCM GROUP AREA MANAGER.

technologies, an Scm **Superset NT** throughfeed moulder and two Routech machining centres, **Area** and **Oikos**.

It was a major decision in an area where wood has always been worked using traditional technologies. Fleischmann wanted to go another way, to be a kind of pioneer: "We selected Scm Group's Italian technology convinced by the expertise, flexibility and seriousness with which our project was treated", he says. "We wanted precise, fast machines, modern solutions with a high level of automation. We opted for **Routech's Area portal machining centre** to machine all of our panels, whether lighter, for covering, or structural, X-Lam type. We import files in "Btl" format, the standard for Cad-Cam software for the timber construction sector, and the **Routech Quick Link software** automatically generates the machining programs.

All with maximum flexibility and the certainty that at any time we

can produce made-to-measure elements, to cater even to the most particular requirements of architects, designers or end customers".

Flexibility, user-friendliness, productivity are the strong points of **Oikos, the machining centre used by Fleischmann to machine roof or wall beams for "timber frames"**, being able to easily manage even very complex elements. A machine for making standard wooden elements, but also able to machine special workpieces, in a region where wooden architecture is constantly evolving. A machine that can do anything, from nesting on the walls of a prefab house to 5-axis machining on six sides of a beam, without any subsequent work on site.



TECHNOLOGIES FOR JOINERY

L'invincibile SIX pg 92

Our Customers

Neumann (Poland)
SCM complete machine range pg 94

Minimax
new Elite and Elite S ranges pg 96

Our Customers

Tim Butler (Australia)
Minimax pg 98

Minimax and SCM Tecmatic
Wordskills, Sao Paulo 2015 technical sponsor pg 99

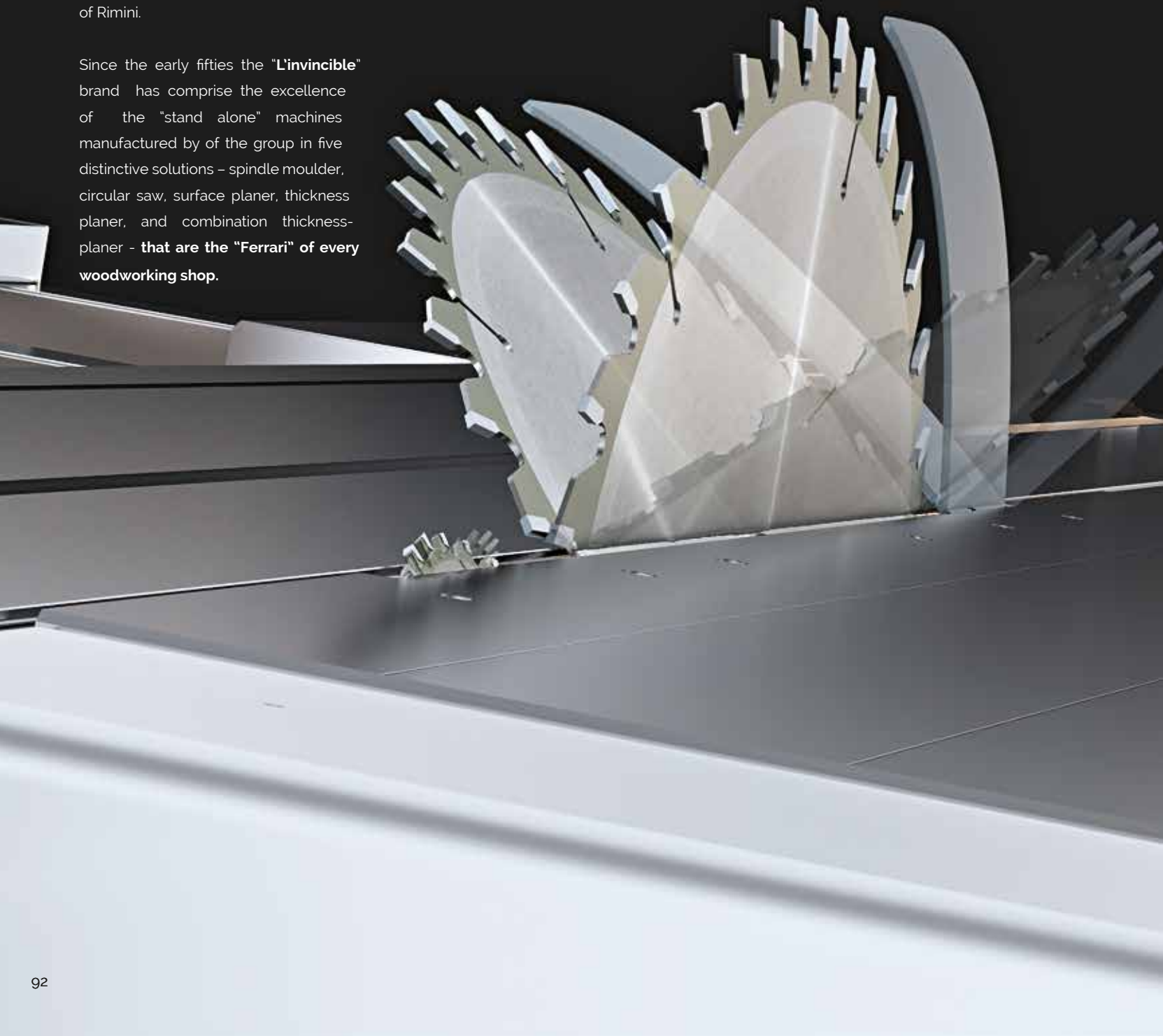
A passion for wood.
Technologies that transform it into
unique objects, products, art, design...

L'INVINCIBILE SIX

*The New Scm Solution For Cutting Capacities $\pm 46^\circ$
Just One Cut, The Right One!*

After the huge success obtained with the introduction of redesigned range "L'invincible" presented last year at the international show in Nuremberg, SCM is ready to introduce an innovation in the cutting solution with the **New "L'invincible Six"**, a sliding table saw that completes the top range of classic machines proposed by the group of Rimini.

Since the early fifties the "**L'invincible**" brand has comprise the excellence of the "stand alone" machines manufactured by of the group in five distinctive solutions – spindle moulder, circular saw, surface planer, thickness planer, and combination thickness-planer - **that are the "Ferrari" of every woodworking shop.**



L'invincibile SiX



The new "L'invincibile SiX", that will be presented for the first time at **Ligna 2015**, includes an advanced "patented" solution result of years of research and development, and years of experience associated to a history of success.

SiX is the most effective and safe answer for all the woodworkers looking for a powerful solution to cut veneered panels and solid wood material, offering a unique **cutting capacity in its class in both straight cuts and oblique in both directions (+/- 46°) with a tilting range of 92°, all without removing the scoring blade**. Thanks to the double inclination of the blade, the operator has the possibility of working parts in both sides and perform complicated cuts safely, ensuring always the highest quality of the finished product with a minimum waste.

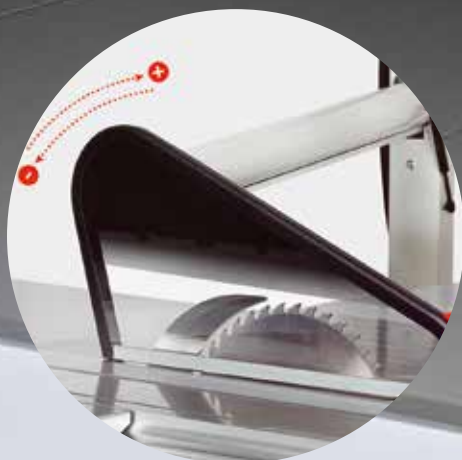
A new blade unit allows the **simultaneous use of the main blade (up to 550mm) and scoring blade (160mm)**, obtaining maximum performance and flexibility on all machining – **Just one cut, the right one!**

All the machines of "L'invincibile" range are intelligent and understand in real time the instructions coming from the operator, and assisting him by eliminating the possibility of error and risks of accidents.

L'invincibile SiX, "The State of the Art".



New automatic raised protection system.





Neumann

NEUMANN

(OSIEK, POLAND)

BESPOKE TABLE AND CHAIR PRODUCTION

www.mebleneumann.pl

Wood-working with the entire L'invincibile range

18 employees, a turnover of around € 1.5 million and a very special recipe: it's good for business if you're the owner of the wood-working workshop, handle production and also sales.

This is the thinking behind Polish company **Neumann**, which manufactures chairs and tables for other furniture makers, and which also markets through two points of sale located in Toruń and Olsztyn. Tables and chairs, a strong specialisation, a choice of sector that led the company to achieve good results and to consolidate its role as a reliable, capable supplier.

Obviously, solid wood plays a big role: 80 per cent of the material processed at the Osiek site, near Starogard Gdański, is beech, oak, alder. The rest is veneered panels, still using natural types of wood, for table tops. It's ideal work for traditional machines, updated and with

T H E S P E C I A L I S T





control systems making everything simpler and repeatable. **The perfect challenge for "L'invincibile" series machines!**

Production "that works" and that doesn't stay confined within the Polish market. A good 50 per cent of products are exports to: Germany, Russia, Belarus, Ukraine.

Production designed and developed within the company, designs created, drawn and produced in order to give consumers – seeking high quality chairs and tables – a range that satisfies diverse tastes and requirements. It is a leader in a market that from one year to the next shows constant growth, where it isn't just the end consumer looking for new products, but where demand from hotels, restaurants and contracts is increasingly focusing on quality, good design, sturdiness and excellent materials. All at prices that are definitely more competitive than those offered by manufacturers in other countries.

Here **we have quality wood-working, using machines that guarantee precision and a high level finish.** All with great skill and deftness. The wood is sawn, moulded, worked, sanded, finished and assembled. From A to Z: every step, for straight or curved elements or for panels. **Vast**

experience supported by SCM technology, which is always closely associated with craftsmen, who want to use ancient know-how.

Those are the values expressed by **Neumann**. That's how they work here, that's the way they make products. Although machines are important, a lot can be gained from the individual's abilities, his knowledge of wood and know-how in processing it.

At Neumann SCM solutions have always been used: the company acquired its first machine way back in 1993 and since has enjoyed a solid partnership with Scm Group. It's easy to see why: good, effective machines at the right price. But above all **excellent, highly professional and prompt service.** Scm Group's technical assistance service and customer care is also an important factor for the most traditional machines!

MINIMAX, INTRODUCES TECHNOLOGICAL SOLUTIONS EVEN MORE USEFUL TO WOODWORKERS, AND A NEWLY REVAMPED DESIGN FOR "ELITE" AND "ELITE S" PRODUCT RANGES

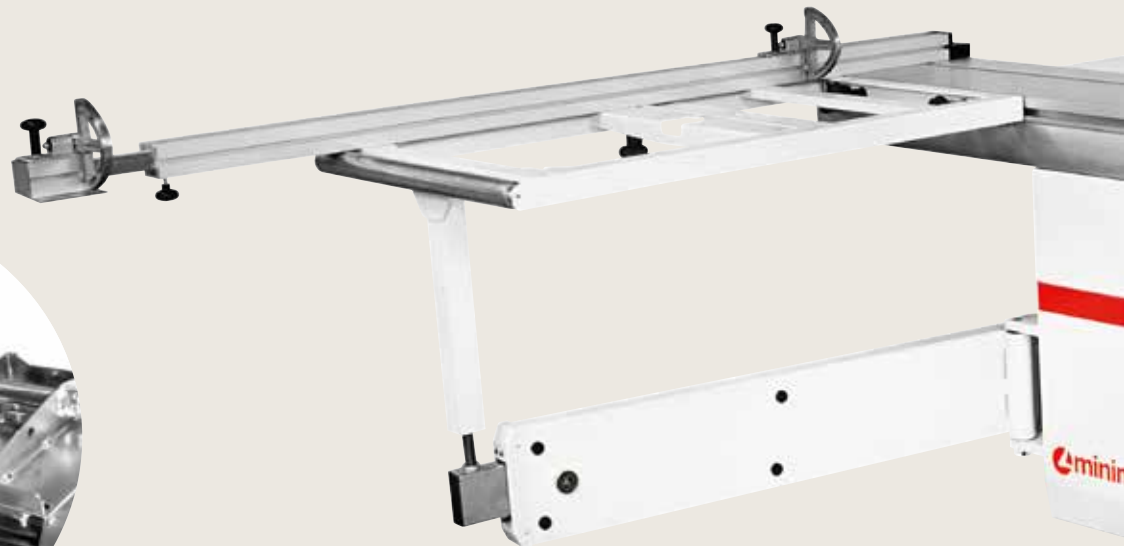
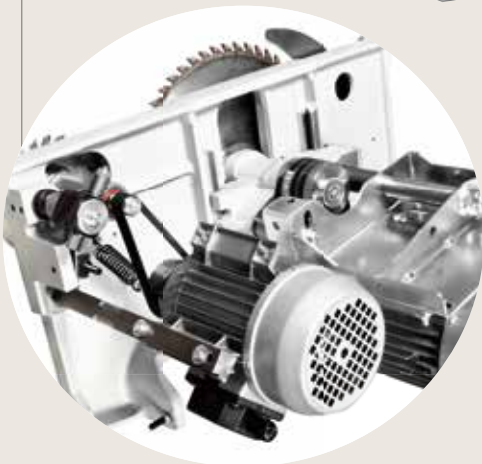
The tradition of MINIMAX branded products and technological innovation of SCM industrial group are the frame of the success in the woodworking machines world for hobbyists and woodworkers.

The new "Elite" and "Elite S" product ranges are the **top of professional machines produced by Minimax**, and this year they are presented with a completely revamped design, simple and ergonomic, and with a robust structure containing technology solutions of excellences born from the long experience of the **SCM Group**.

The **new chassis design of "Elite" and "Elite S"** makes them even more practical and safe. A **new sliding table 360 mm wide**, made of extruded aluminum with a closed reticular structure, provides optimum support even for large pieces. The exclusive sliding system is on hardened and calibrated steel guides, fixed to the carriage through a aluminum riveting process, **test-**

ed for over 50 years of experience SCM, that guarantees a perfect smoothness of the carriage thanks to the absence of the glue that may create inaccuracies during sliding.

ROBUST CAST IRON GROUP OF BLADES WITH CLOSED RING STRUCTURE



The **new saw unit** consists of a **sturdy cast iron structure at closed loop** supported firmly under the table by two crescent-shaped side supports, giving at group the support and tilt in absolute rigidity of the system, for precise cutting in every situation.

A new large squaring frame with **telescopic fence and integrated inclined metric ruler**, that offers an immediate and easy to read-out of measurements, and the new controls for the saw and scoring blade that are positioned **head of the carriage** (optional), are the perfect solutions to complete the **exclusive innovations** of the **Elite S** product range.

Minimax, the ultimate expression of **performance** and **technology** in complete **safety!**



Tim Butler

Minimax “Cu 410 elite S”, universal combined woodworking machine



TIM BUTLER
(HALLS GAP, AUSTRALIA)
CRAFTSMEN
www.grampiansfurniture.com.au

“An Italian dream machine”

THE SPECIALIST



At Grampians Furniture (Halls Gap, Australia) a second chance...

Halls Gap is an Australian town, the capital of the Grampians National Park. A lake, Lake Bellfield, a river, Fyans Creek, surrounded by a splendid natural environment. This is the landscape where Tim Butler lives, a carpenter seduced by the landscape and by the wood of the River Red Gum (*Eucalyptus Camaldulensis*), a tree which finds its ideal habitat along the edge of rivers and water courses.

In his workshop, **Grampians Furniture**, he breathes life into pieces of furniture which are a physical expression of this land: solid wood, worked with passion using traditional methods, and finishes which highlight the beautiful colour of the material, along with a style which communicates nature, simplicity and warmth.

Butler's mastery is widely appreciated - his reputation has surpassed the boundaries of the Grampians National Park region, and his work is known in neighbouring provinces and other states throughout Australia.

But a few years ago, Tim Butler was the victim of a serious accident: during one of his rides into the magnificent natural landscape of Australia, along the Grampians National Road, the passionate motorcyclist came across a kangaroo. The fall was very serious: he suffered a cerebral haemorrhage, a skull fracture, as well as a broken clavicle, scapula, four ribs, and hand, and a punctured lung... the doctors saved him, and he emerged from his coma. But they couldn't hide the facts from him - he would never be able to work again: the part of his brain that was damaged regulates coordination and the organisation of actions in a precise sequence - without even

taking into consideration the limits imposed on his arm movement by the fracture of his clavicle and hand. For a carpenter, this news was enough to snuff out any remaining hope.

“The news hit me really hard”, commented Butler. “But I wouldn't let myself be beaten: I decided to fight, to continue to live my life, and to do the things I loved, the things I knew how to do”. And so began a long period of treatment and rehabilitation. Little by little, the situation began to improve, and Tim Butler was able to return to his workshop, among his tools and sheets of River Red Gum wood.

However, everything was more difficult than before, until the day where a much-anticipated new piece of equipment arrived at Grampians Furniture - a cutting-edge **Minimax “Cu 410 Elite S”** universal combined woodworking machine, the first of its kind ever made in this product range.

“An Italian dream machine”, as Butler defined it “A combined machine which is so powerful and intelligent that it has allowed me to do many of the things I once did again”. It arrived on the 23 December, the day before Christmas Eve and Butler's birthday - perhaps not by chance...

“The absolute precision and the automatic functions that this machine boasts have helped me enormously”, he adds. “All I need to do is press the correct buttons to get exactly what I want, with some stunning results. I remember that one of the first pieces I worked on with this universal combined machine was a table leg. It was like it had already been smoothed off, such was the quality of the cut. I decided to varnish it and keep it as an example of what I could achieve with my new Minimax!”.

SCM GROUP TECMATIC AND MINIMAX

TECHNOLOGICAL SPONSORS OF WORLDSKILLS SAN PAOLO 2015 Ready to let the best carpenters in the world compete each other!

From **11 to 16 August Sao Paulo** in Brazil will host the WorldSkills competition 2015. Held every two years it is the world's largest **professional education event**. This year the event will be held in Latin America for the first time and will see **1200 competitors from 50 countries around the world** taking part. SENAI (National Service for Industrial Training), one of the most important international institutions for professional education, is this year's organizer.

Passion, technical skills, talent and a hunger for the future, are all needed to take part in WorldSkills. The competition will feature many different professions: hairdressers, chefs, waiters, joiners, gardeners and of course carpenters. This profession can to this day be defined a unique craft, that mixes tradition and technology.

SCM Tecmatic and Minimax are the technical sponsors of the WorldSkills Competition 2015. They are the official suppliers of all the machines that will be used by the competitors during these veritable Olympics for craftsmen.

Last year SCM Tecmatic supported another important event, the knowledge Olympiad held in Belo Horizonte for the furniture sector, woodworking and structural carpentry for roofs. This is a **constant commitment** of Scm Group's Brazil branch, to support the new generations that will one day work with woodworking machines with passion and skills.

The WorldSkills Competition is also a unique opportunity for meeting and exchanging knowledge and skills on the best approaches to professional education for leaders of the sector, universities, public bodies and experts.

For the **Minimax** professional machines, that have always been appreciated by those that work and create with wood for their ease of use, safety and size, the WorldSkills competition is a great opportunity to allow young talents access to a technological heritage that has always been at the service of craftsmen.



www.worldskillssaopaulo2015.com



TECHNOLOGIES FOR ADVANCED MATERIALS

DMC High Tech Laboratory

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SCM SZ Plast

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Our Customers

Hunton (Norway)

Celaschi Progress

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Our Customers

Xylème (France)

Routech Chronos HT

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Our Customers

MET (Italy)

SCM Accord and ROUTECH R200K

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Our Customers

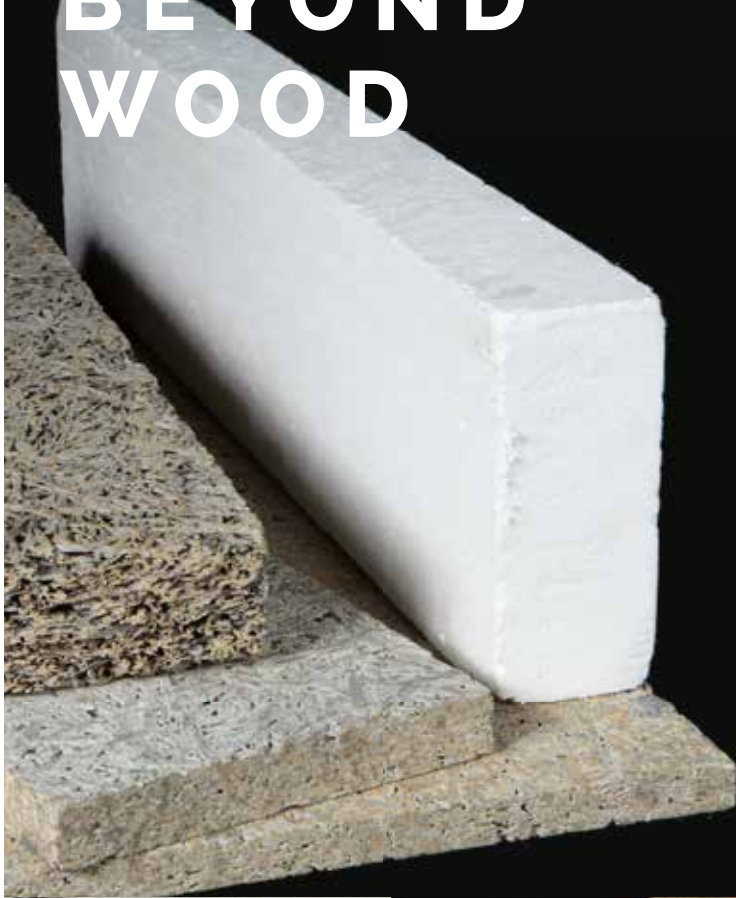
Montracon (United Kingdom)

Routech Area

pg 110

Going further. Skill that goes beyond
wood as a raw material, towards the
future... plastic, metal, composite
materials...

DMC HIGH TECH LAB INNOVA- TION AND RESEARCH BEYOND WOOD



Dmc Hi Tech Lab is the technological laboratory, set up in Thiene (Vicenza), dedicated to research and innovation applied to sanders and brushing units for wood and solutions for treating metal surfaces as well as more advanced and innovative materials.

Woodworking machines are increasingly being used for other materials and at the same time the demand for continuous improvements in the quality of finished products is constantly growing. These two factors were behind the creation of the DMC laboratory, a veritable research and development centre and showroom designed as a meeting point between company knowhow and the market.

The aim of Dmc Hi Tech Lab is to conduct research in sanding materials, materials processed with flexible sanding machines, as well as finishing processes on innovative materials such as Corian, inert materials, quartz, polyurethane, rock wool, cement fibre, etc. These materials, that once did not require sanding, have today become veritable furnishing materials that require finishing processes and, in some cases, the application of a finishing veneer, whose surface must be perfectly calibrated and sanded.

The research into new materials has allowed us to create an entire database to fill in the gaps in the information of the manufacturers of sanding materials in terms of machining parameters.

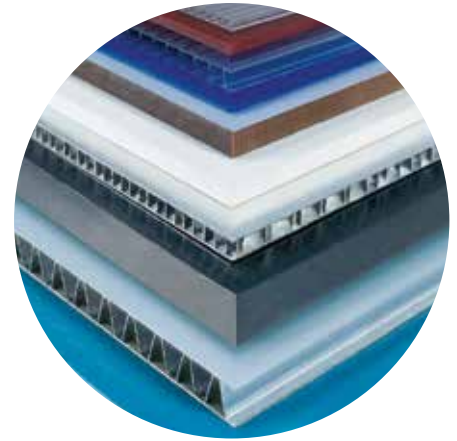
Anyone stepping into the DMC High Tech Laboratory can find a complete answer to any surface finishing requirement and an advanced professional service that allows them to check the performance levels possible with finishing processes. The laboratory houses machines fitted with various units and tools, amongst which is a multi-finish machine, a brush/rustication unit, two dry and one wet machine for metal.

The DMC High Tech Lab is open and at the complete disposal of all customers interested in practical demonstrations and to see first-hand the most advanced sanding and surface treatment technologies.

T H E S P E C I A L I S T



SZ PLAST THE PANEL SAW DESIGNED TO CUT PLASTIC MATERIALS



The SZ Plast, designed to machine plastic and other non-wooden materials, allows versatile and efficient production thanks to the wide range of optional units available for cutting even the most demanding materials.

DOUBLE HOOK GRIPPERS: packs are gripped securely without ruining the surface of the materials.

OPTIMISED BLADE HEIGHT: cutting precision and finish with any thickness of material.

BLADE COOLING AND LUBRICATION

FROM CONTROL: optimal cutting quality is ensured with the blade cooling or lubrication with an air/oil mixture.

INVERTER FOR THE MAIN BLADE: optimal finishes are ensured by changing the peripheral speed of the main blade during material cutting. Max power 15 KW.

STURDY GROOVED PRESSER: effective grip of the material being cut. The lower aluminium plate ensures that thin materials do not vibrate during the cutting cycle.

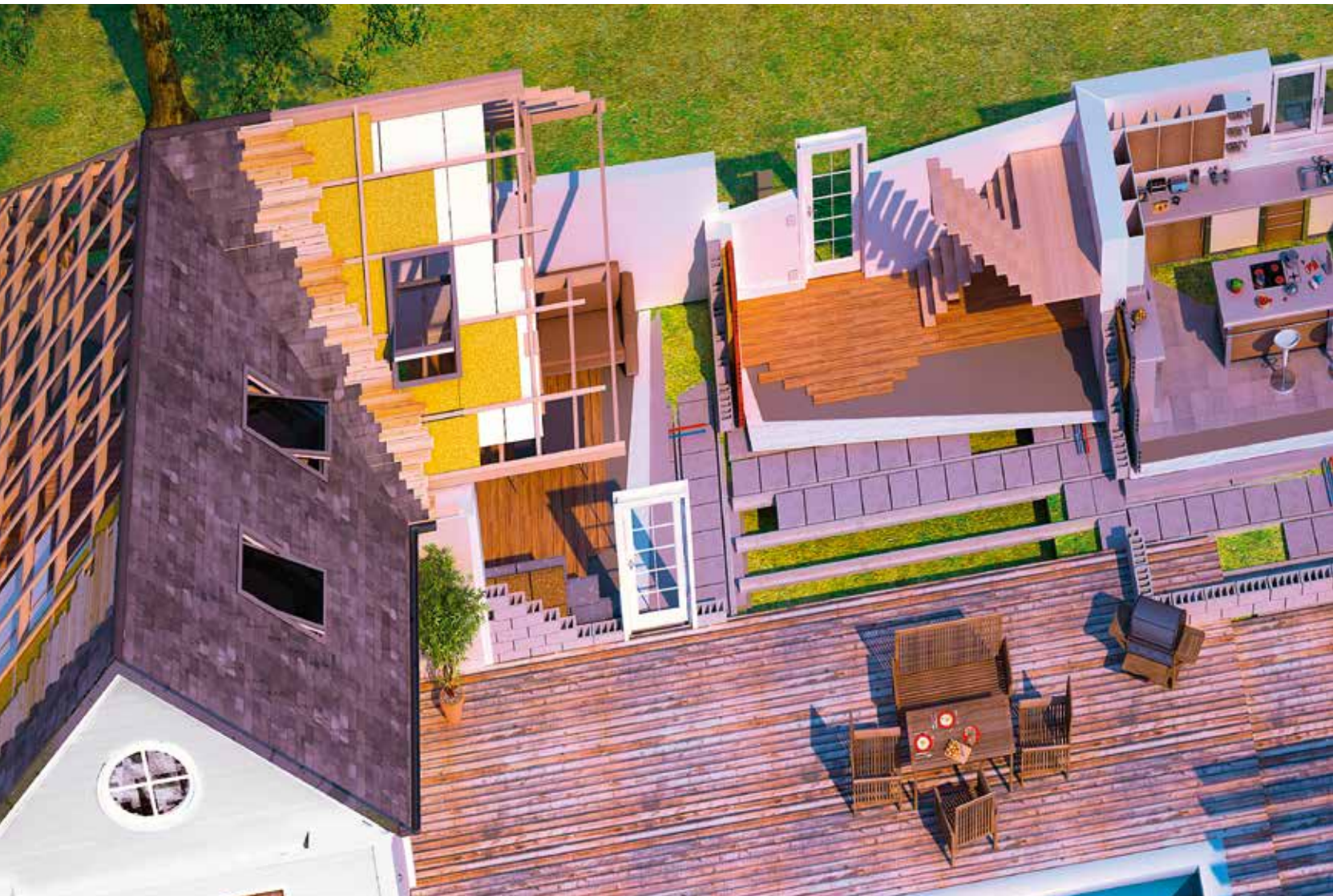
BOOSTED EXTRACTION ON THE PRESSER: ensures an excellent cleaning level of the worktable.





Hunton Fiber

The squaring “zero point”
that makes all the difference





SCM Group's specialists are always ready to respond with state of the art solutions to any technical requirement. This was the case with Celaschi and a Norwegian client.

Hunton Fiber needed to square insulation panels for the construction industry with a machine that had the 'reference' or 'zero point' on the upper presser and not on the lower feed track, which is the usual positioning. An apparently trivial request but that in actual fact allows for a considerable reduction in the panel movements on the line and significantly shortens processing times, all in a much smaller plant. The problem was resolved by the technicians of **Bergsli**, Celaschi-SCM Group's dealer in Norway. The solution consisted in a "Progress" double-end tenoner set up to the client's specific requirements and by taking into account the specifications of the panels.

"This solution allows us to machine pieces with different thickness continuously", explains a company spokesman. "Moreover we can achieve a much greater efficiency compared to our previous setup".

Hunton is a Norwegian group and one of the most important Scandinavian producers of highly insulating wooden panels used in the construction of floors, walls and roofs. The group's origins date back to 1889, and a small saw mill that worked in the cardboard industry. As times, demands and markets changed the company shifted its production to more remunerative wooden fibre panels. In the sixties the company came up with the idea of adding bitumen to the wood, creating the **Hunton Windtight** panels, which revealed themselves to be extremely effective in reinforcing building frames and provide

HUNTON
(GJØVIK, NORWAY)
THE LARGEST SCANDINAVIAN
PRODUCER OF WOODEN FIBRE
PANELS
www.hunton.no

insulation against the wind. Their immediate success ensured that the panels produced by the Norwegian saw mill spread across the globe. The production was increased over the years to include panels that join together the properties of wooden fibres with other materials to provide exceptional performances in specific uses in terms of heat, sound and environmental insulation.

As demand increases the technologies have to keep pace to ensure that **production speeds can be increased**, whilst maintaining the **extremely high quality standards** that have made Hunton famous. Celaschi's "Progress" ensures that the panels in wooden fibre and bitumen can be profiled and squared easily, also thanks to the continuous cycle automatic loading systems. The panels are cut, profiled longitudinally and squared crossways. A 1200 millimetre wide panel from the presses is transformed in two 60 millimetre panels. In the unloading phase an automatic system rejects any panels with faults or dissimilarities.



Xylème

The right technology for diversifying know-how

T H E S P E C I A L I S T



For more than thirty years, the company Xylème has adopted an original approach to wood-working, a profession they have followed with passion and perseverance, achieving a full understanding of the machines, technologies and tools, which makes them better able to share them with their partners.

Established in 1983 by Patrick Laurent in Pouzol, located in France's volcanic region, from the very start Xylème Sarl was an original joinery shop, working with wood, aluminium and plastic (PVC). Its founder didn't want to do exactly the same as many other companies in his region. He decided to purchase standard items, particularly made of aluminium and PVC, from his colleagues. But **specific and original items are maintained, produced and enhanced within the company, so as to preserve all of its know-how.** As well as producing and installing traditional doors and windows for the construction sector, the company makes its machining centres available for bespoke machining of all soft materials under a joint-contract logic.

INVESTMENT IS THE KEY TO XYLÈME DEVELOPMENT

In 1992, aware of the increasing importance of automated production means, Patrick Laurent purchased his first CNC machining centre. It marked the start of a long series of investments: a new machine every 14 months until 2008. Laurent began investing again in 2015, buying the **HT version of the Routech Chronos.** Chronos HT is the

XYLÈME
(POUZOL, FRANCE)
SPECIAL PROCESSING
OF ALUMINIUM, PVC AND WOOD
www.xyleme-usinage-cn.com



highly flexible 5-axis numeric control machining centre developed by Routech, ideal for machining not just wood, but also light alloys, plastic and composite materials. **The main features are the large machinable volume, compact dimensions, total operator safety and the cleanness of the environment.**

THE COMPANY'S BUSINESS IS SPLIT INTO TWO AREAS

Around 58% of Xylème's business is linked to traditional wood-working mainly requested by private individuals, for whom top quality bespoke solutions are produced. In parallel, **42% of business comes from special machining services performed on behalf of third parties. This side of the business has exclusive use of eight 3-axis machining centres, two 5-axis machining centres,** a saw and an edge-bander. Xylème offers a complete service on wood and derivatives, for wood and plastic industries. Half of Xylème's clients are POS material manufacturers, others are electronics laboratories, the car industry and the aviation industry.

THE GOLDEN RULES FOR PATRICK LAURENT: PROXIMITY AND AVAILABILITY

Since the company was started, custom has basically grown by word-of-mouth, thanks to the quality and originality of the services supplied: **quick fulfilment of market requirements, the decisive role of service, proximity, contact are aspects that make a difference.** High quality, precision machining. Customised solutions, excellent before- and after-sales service. These are the reasons why Xylème chose Routech. In particular, the Chronos HT machining area measures 4200x1560 mm and 800 mm high, for performing 5-axis machining of complex and large components in total freedom. The machining units are rated up to 15 kW with speeds of rotation as high as 24,000 rpm, guaranteeing maximum precision and quality surface finishing.

MET

Winning Dialogue between super “Specialists”

True specialists, able to analyse the problem, come up with a solution and create the aggregate needed. The application sector is that of food technology, more precisely **bottling plants**.

“What we do is work with the manufacturers of units for labelling, packaging, bottling, aggregates that will be installed in highly complex lines, capable of very high speeds and production capacities, built by true industrial giants in the sector which use “third party suppliers”, like us, for the construction of certain aggregates”.

This is the start of the explanation by **Gianfranco Milani**, co-owner of **Met**, based in Roverbella (Mantua province), who gave us a further demonstration of **how wood-related technologies and expertise in machining on numeric control centres can be successfully “exported” to other sectors**. It represents a very important opportunity in the current situation...

“Our job is to convey the bottles in the machines, to make them move along a precise path and at the correct speeds: the technical office of our customer company (95 per cent working for foreign customers) sends us the drawing and we prepare the finished part, ready to be installed, made of plastic or metal. We work all materials because the components of these plants include, for

example, steel flanges or bushings made on a lathe. We’re a machine shop with a goal: to supply a quality product and service that makes us stand out amongst the many others who do the same work as us”.

Two partners (Gianfranco Milani and Graziano Toffoli), seventeen employees, a turnover in excess of € 4 million, two production units, one for plastic materials, the other for steel, a couple of kilometres apart. In total 3,600 square metres of machine room, and the desire to expand, if possible at a single site..

“We’ve always chosen innovative technologies, avoiding traditional methods: as soon as Graziano and me decided to set up our own business we started to invest in machines

because the bottling sector deals with particular aspects, different shapes, containers and bottles that are different to one another, but which the plants must still be able to process.

We are specialists. We make “tailored” parts. And we don’t have much time to do it, because people are just waiting for us to do our part. They need our screw feeders or our feed units so that they can close the crates, ship the plant, then go and install it at the end customer’s premises”.

“We have to be extremely quick in getting from the drawing to the part that’s ready to go... All in a few days. For us the “Sim Coclee” (screw feeder sim) software created with Routech technicians for the two “R200K” machining centres, one with robot, that we use has been



MET
(MANTUA, ITALY)
PROCESSING PLASTIC AND
ALUMINIUM
FOR BOTTLING LINES

a blessing: we combined our specific expertise and their technical know-how and the result is that now their technologies can even do things that maybe they would never even have thought of. It's really great!

"We have a good working relationship with Routech and Scm Group and the machine - software combination guarantees us the results that we dreamed of! Having made our process "technological" means that we can make a good product, with constant quality, which we can sell at a reasonable price. This gives us a considerable competitive edge over our competitors. We have a good turnover with the right number of staff: I think that with these machines, and above all with this software, we have halved our times..."

The first encounter with Scm Group dates back several years: an initial purchase that gave the results expected and, above all, established a relationship and cooperation between the companies.

We now have five **Scm** gamma **Accord** centres for nesting on large sheets of plastic material, up to 5000x2200 mm, as well as two **Routech "R200K"** for screw feeders and a **Tecnocut-Cms** water jet cutting system for sheets and spongy materials. In recent years we have doubled our technological assets, because we can't afford to stand still..."



DMC METAL SYSTEM AT MET

*The stainless steel components used in machinery for the food and pharmaceutical industries must have a high level of surface finish. This is why MET has decided to install a DMC "**Metal System**" automatic deburring and finishing machine in its metal working plant, to remove sharp burrs from component edges and finish the surfaces of laser-cut parts. Moreover, the machine guarantees maximum hygiene and safety for the operators, an essential requirement for the sectors that these machines are used in.*

*MET's "Metal System" machine has been fitted with a contact roller to remove burrs, a rotating disc unit to remove sharp edges and a second contact roller for finishing the surfaces. The **innovative modular potential of DMC's deburring machine** has allowed MET to leave some free space inside the base to be able to add another machining unit in the future if required. Compared to the manual deburring and finishing process, the "Metal System" has considerably **increased productivity**, whilst at the same time guaranteeing maximum uniformity, consistency over time and measurability of the results of these machining processes.*

At Montracon

Scm's largest cnc in the UK installed at Montracon

Montracon are one of the leading manufacturers of top quality trailers in Europe supplying all types and the widest range of Box Vans, Curtainsiders, Flats, Double Deckers and Fridge trailers, from three manufacturing sites in Market Weighton and Doncaster, Yorkshire and in Mallusk, Northern Ireland. Montracon have recently expanded and upgraded their three sites with a multi-million pound investment.

At Montracon's Market Weighton factory, they specialise in refrigerated trailers, supplying all the major UK supermarkets, multi-national companies and independents.

A CNC machine with a very long table, 23 metres by 4.5 metres in fact, to accommodate trailer sides and roofs was specified and therefore an SCM Routech 'Area' machine was quoted and an order quickly followed. Of the hundreds of CNC's supplied in the UK by SCM, this would be the largest CNC Machining Centre installed in the UK market with an investment by Montracon of over £350,000 on the Area and tooling etc..

Stephen Reeve comments "We were very impressed with SCM's proposal as the machine also included a 5-axis Prisma 'T' machining head that would accommodate a large diameter sawblade that would trim all 4 sides of a typical 103mm thick double-sided GRP laminated foam panel and also drill any holes required for assembling various items located in a trailer to meet customer's demands."

MONTRACON
(MARKET WEIGHTON,
UNITED KINGDOM)
ONE OF THE LARGEST
EUROPEAN
PRODUCERS OF
TRAILERS
www.montracon.com

The Area's operator and programmer, Paul Machen, uses Alphacam and SCM's 'Quick Link' to program the Area. 'Quick Link' is a tool that allows the operator to interface with all the best Cad/Cam's available on the market. It is not necessary to program individual elements, the information comes from the CAD that designed the component and 'Quick Link' does the rest.

“ We are very pleased with the machine. It has enabled us to increase production and the quality of our trailer sides and roofs in this ever competitive market.” ”

STEPHEN REEVE





SCM GROUP SERVICE

SCM Group provides a service that goes beyond the purchase to guarantee long term performance of its clients' technological production system.

OVER 500 TECHNICIANS ACROSS THE WORLD

A network of trained and constantly updated professionals provides a first hand, concrete and highly efficient support service.

A COMPLETE RANGE OF AFTER-SALES SERVICES

- installation and start up of machines, cells, lines and plants
- tailored training programs
- telephone support to reduce times and costs due to stopped machines
- preventive maintenance programs to guarantee long term performance
- complete overhauling of machines and plants to renew the added value of the investments
- custom upgrading to update machines and plants and meet new production requirements.



SCM GROUP SPARE PARTS



Customer care is our Commitment

We have **six branches** across the world (Rimini, Atlanta, Singapore, Shenzhen, Moscow, Sao Bento). **36,000 parts**, for a value of **12 million Euro** ready to be promptly shipped and reach the furthest destinations within a maximum of **48 hours**. We make on **average 800 shipments a day** to maintain a few million machines installed across the five continents perfectly efficient. Our **warehouses cover 10,000 square metres with 25 warehouse staff, 5 purchase staff, 5 quality control staff, 60 spare parts specialists, 30 in Italy and 30 in the various branches** that cover the different markets. Local people that speak the same language as the client and that often know the clients personally or know which machines they use.

*“... because it’s people that determine the quality of our after sales service”, says **Alessandra Benedetti**, who has in recent years been in charge of Scm Group’s spare parts service. “They are our face, our specialists who have a great passion for their work and so much experience that they can understand which part our client needs just from a photograph, a telephone call or a description”.*

Our after-sales service has in recent years seen **considerable investments and an extensive overhaul**. These days logistics and shipping times allow a large industrial group like ours to improve its relationship with its clients by managing any service, also spare parts, with greater effectiveness and without wasting its resources.

“We have centralized the service for Europe and for various countries across the world in Rimini, creating strong synergies and greater controls so that we can we respond to our clients requests as quickly as possible. Often by eight o’clock the next morning we are able to respond thanks to a computerised process that we use to manage all stages, even the smallest, of this complex job”.

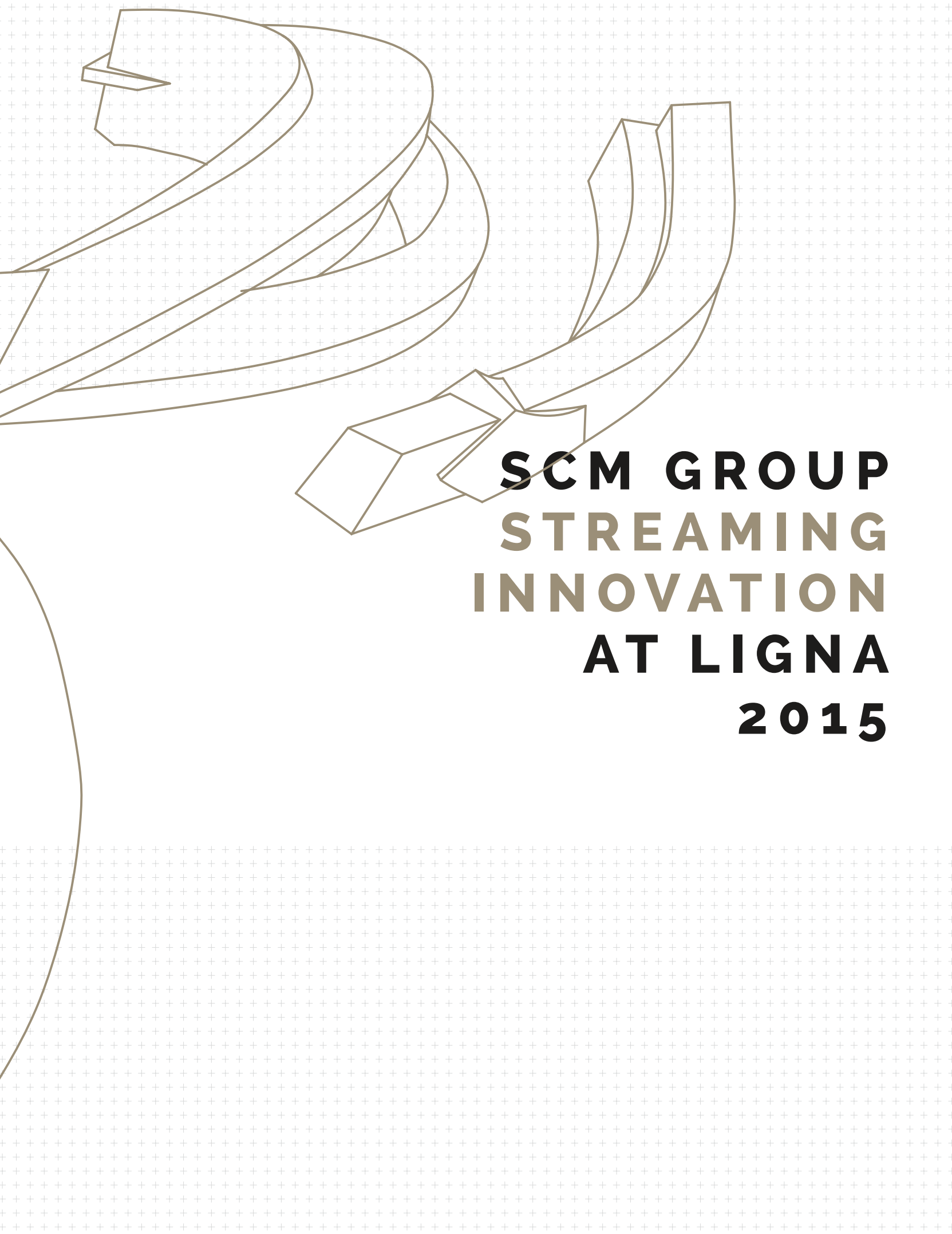
“Our passion – adds Alessandra Benedetti – is to always provide an answer, even to the Swedish client that a few days ago asked for a spare part for his sander bought in 1977! I don’t know how many other companies would have done what we did. Once we understood the problem and retrieved the technical drawings we asked our supplier for the part. Within a week the sander was back up and running. We never turn down our clients”.

A lot of staff at the Rimini spare parts warehouse believe that the machines have a heart. This is their passion. They understand that every stopped machine not only damages the client but is a problem to be resolved as quickly as possible for the group’s success.

“ They say that when a client buys a machine from Scm Group for the first time it’s down to the sales team. When they buy a second, third or fourth machine, the merit is also of the after-sales service.”

adds Alessandra Benedetti. *“There is a great deal of truth in that statement and we are ready to prove it , every day: try us!”.*





SCM GROUP
STREAMING
INNOVATION
AT LIGNA
2015

DIGITAL PRODUCTION

Many still remember Scm Group's stand at Ligna 2013. A large structure in poplar OSB, produced by IBL of Coniolo (Alessandria) and created by Naldini Arredamenti of Forli with numerical control technologies by Scm Group. The striking structure was called the Frequency Wall and seemed to come alive with every step.

This year we will be at Ligna 2015 with an equally fascinating structure. It will demonstrate how digital productions, that use design software and extremely sophisticated technologies and their ability to communicate with each other, can open new horizons.

Behind all this there is the work, research and experiments of **Federico Rossi**, associate professor at the School for the Built Environment & Architecture at the **London South Bank University**. The Italian professor has recently founded a laboratory within the university that works on Digital Architecture and Robotic Construction - www.dar-lab.net. A team of experts and technicians are testing systems that are based on the direct passage between design and production, from software to machine. In other words from the idea to the object, whatever it may be.

"The research world is increasingly interested in "design to production", in other words technologies that can transfer complex design geometries to the language of a machining unit and a numerical control work centre", explains Rossi.

"We have been conducting this applied research with Scm Group for a few years. For us it's a great opportunity to experiment and test how our ideas can be developed in the day to day work of a company. A digital approach to production that in the not too distant future will feature significantly in all sizes of companies".



“This unique flowing, three dimensional, technological installation unites aesthetics and wood to create various spaces, comfortable areas and passages through which visitors can access the stand.”

The stand at LIGNA 2015

All this has led to **“Streaming Innovation”**, the structure in the middle of Scm Group’s main stand at Ligna 2015 and featured on the group’s new advertising campaign. *“This year we wanted to try a different and more advanced three dimensional structure that expresses the complexity of the surfaces and volumes that can be obtained easily and quickly with five-axes machining processes”, explains Rossi.*

“Masses and volumes that intersect each other like roots represent Scm Group and its ability to provide machines and technologies that, placed together in the right sequence, complete a production process, whatever it may be”.

“Complex shapes – continues Rossi – that recall nature and, at the same time, the concepts that are at the heart of the movements through space of the tool in a five axes machine. This unique flowing, three dimensional, technological installation marries aesthetics and wood to create various spaces, comfortable areas and passages through which visitors can access the stand”.

The whole installation has obviously been produced with Scm Group’s numerical control machines *“... a monumental and concrete demonstration of the infinite potentials that can be achieved with the group’s skills and ability to work in any spatial dynamic and any shape, to bring to life any idea, even the most ambitious”.* concludes Federico Rossi.

NALDINI ARREDAMENTI “DIGITAL CRAFTING” IN ACTION

Thanks to a long partnership with SCM Group’s technologies

“For a small company like ours being able to contribute to the creation of Scm Group’s stand, a colossus in the woodworking technologies, for Ligna 2015, the most important trade show in the world for our sector, makes us extremely proud. The fact that the project was by Federico Rossi, professor at the South Bank University in London, makes it even more exceptional”. This is how **Gabriele Naldini** described his recent experience. His workshop produced the parts that brought to life the gigantic **“Streaming Innovation”** structure that is at the heart of Scm Group’s stand at Ligna 2015.

Gabriele, who is the second generation of the family run company, **Naldini Arredamenti** of Forlì, set up by his father Nevio, started working in the mid-eighties. At the time the company consisted of a small workshop in San Martino in Strada, close to Forlì, that was soon rendered obsolete by new projects and ideas. The progressive move towards producing furniture for shops and chemists lead Naldini to new markets and in 2004 they took the decision to radically change the company with a new plant, new technologies and new objectives. Today Naldini Arredamenti, thanks to its technical and production staff and a consolidated group of external workers, sees a constantly growing turnover. All their work is rigorously custom, from the design to the installation. They provide a complete service of an extremely high quality with a constantly growing interest in commercial, contract and residential furniture.





“ We have taken an even more radical leap forward with the purchase of a “Tech Z5” five axes work centre. Now we can work in all three dimensions and meet all the requirements of designers that are increasingly working with this approach, with products that we would never have been able to produce manually ”

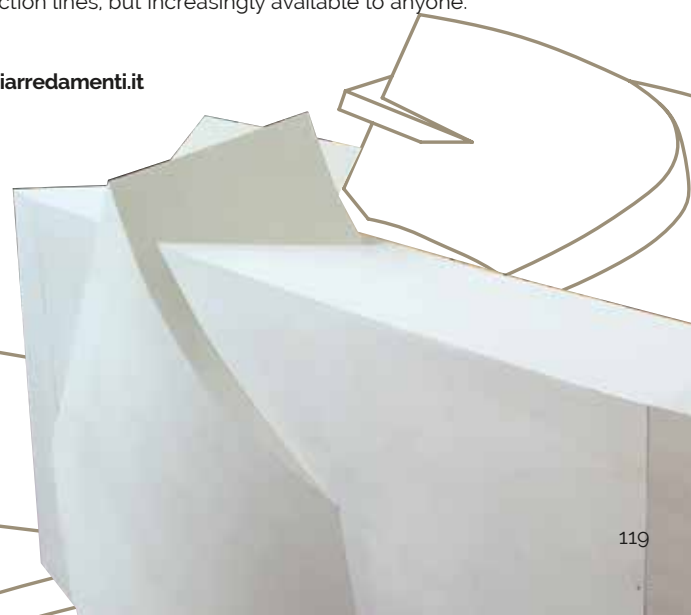
“But what really changed us – says Gabriele Naldini – was embracing the new numerical control technologies. The first centre that we bought was a Scm “Tech Z2”, which literally launched us on another planet. We managed to survive the initial and extremely difficult years of this recession thanks to this choice”.

“There was an extremely tough selection during which the numerical control machine allowed to continue growing and win complex jobs that previously we wouldn’t have been able to do.

Once the initial difficulties were overcome, Naldini now employs a **‘numerical control approach’** to its work: *“Every order – concludes Naldini – is designed, planned and produced by taking into account everything that we can do with our Scm work centres, which are absolutely perfect for our requirements”.*

Somebody has called it **“new digital craftsmanship”**. It’s not a particularly exciting definition but, more than others, it encapsulates a new way of working that is not solely limited to large companies or large production lines, but increasingly available to anyone.

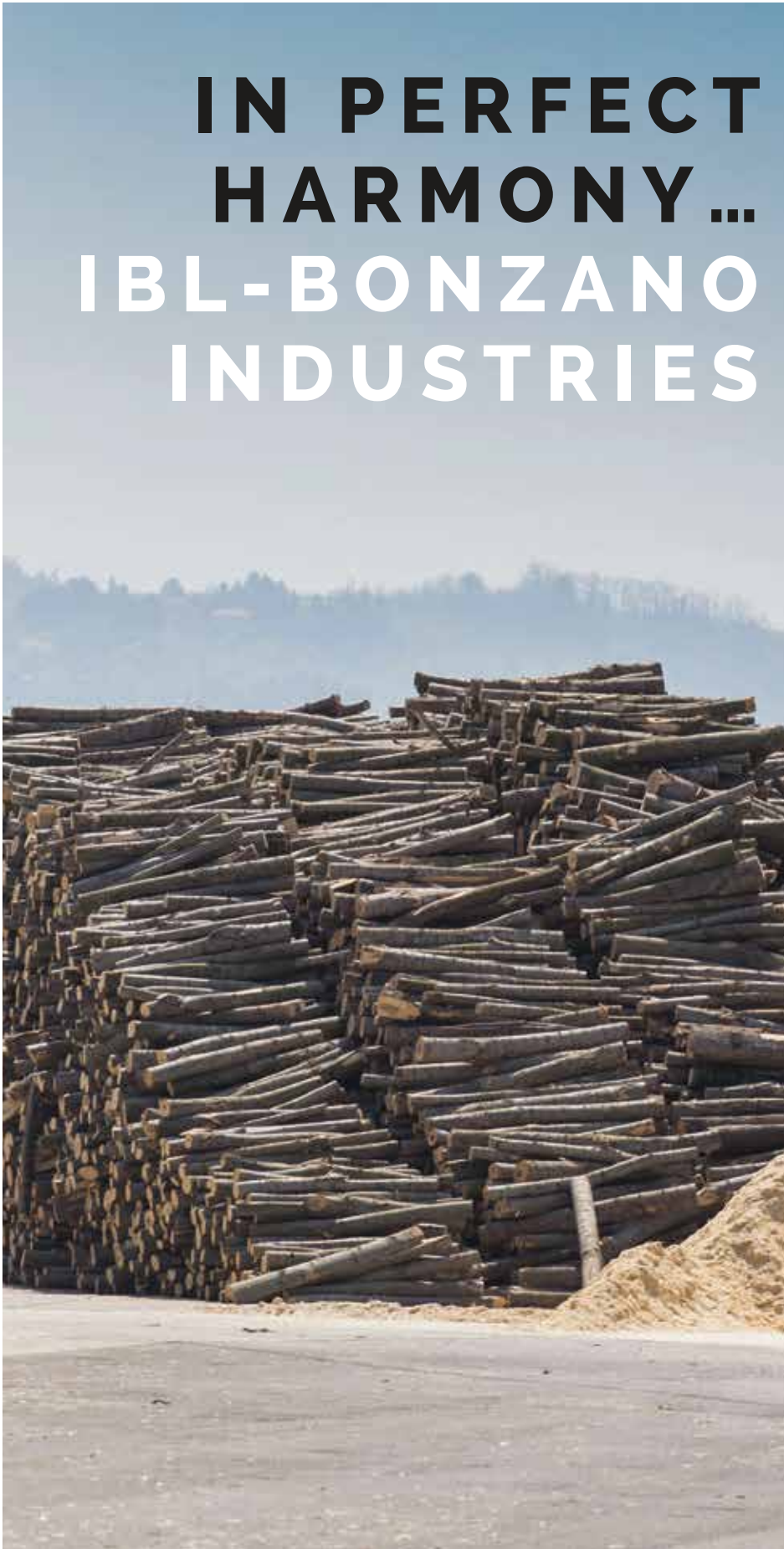
www.naldiniarredamenti.it



IN PERFECT HARMONY... IBL-BONZANO INDUSTRIES

"We have always believed that we shouldn't limit ourselves to simply producing panels but try and make them as close as possible to our clients requirements. This creates new opportunities for us and our partners. And after all, this is the same industrial approach taken by Scm Group: increase the offer, customise solutions and create advantages for the clients".

These are the words of **Enrico Bonzano**, managing director of Ibl of Coniolo, a group that has worked in the wood sector since 1952. They are the suppliers of the raw materials for **"Streaming Innovation"**, the large construction at the heart of Scm Group's stand at Ligna 2015. The partnership was renewed, after the "Frequency Wall" built for Ligna 2013 *"... because we have a lot in common"*, explains Bonzano. *"We work with clients that have precise requirements and that look for partnerships that can help them resolve specific problems and suppliers able to guarantee a high degree of customisation. This is why we decided to renew our partnership for Ligna 2015, because it is fundamental to have this approach. We are looking into machining with copiers that the automotive world is asking us more and more and a preferential relationship with the large industrial group that provides effective technologies would be a great advantage. We like to think that we can walk together. It would be a shame if this relationship, which began in terms of image, marketing and advertising, didn't*





achieve new and more consistent objectives in industrial terms”.

Lbl's approach to business consists of self-awareness, exploration and experimentation. The Bonzano family has been producing light ecological panels (plywood, multi-ply, blockboard and plated) since 1966. They were the first company to produce thin chipboard, thin MDF and they invented **poplar OSB**, setting up i-Pan and, by increasing its standing, heralding a new era for this material.

The wood division of the Bonzano Group now employees 650 people with a turnover of over 75 million Euro, exporting over 50% of its production also thanks to the company that it set up in Hungary in 1998. The challenge in recent years has been with poplar OSB, the tree which marked the beginning of the family's business. The large plant now produces basic panels but it has been designed and constructed to produce much more besides.

“We are just at the beginning of this journey, of the possible industrial developments for panels made with this material”, tells us Bonzano. Seeing them unfinished and veneered in the Scm Group stand is just the beginning. Who knows maybe this experience, this meeting between materials and technology, will open up new challenges.

www.ibl.it

Life wood





**SCM GROUP
WITH
LUCIANO
MOLINARI**



LUCIANO MOLINARI

Creates “500 KUBE”
from SCM Group
to LIGNA

Cerejeira bocote maggiociondolo sucupira putumujù angelim rajado. No, this is not a nursery rhyme or a spell from an ancient propitiatory rite. They are the names of just some of the over 200 types of wood that **Luciano Molinari** – the 53 year-old craftsman, cabinet-maker and artist – has used on his “500 kube” artwork, a 1969 Fiat 500 L **completely covered with blocks of wood.**

The woods are of all types, and have been salvaged from all over the place, including roadsides, river banks and off-cut piles. It is a genuine “re-cycled artwork” that emphasizes the precious value of this material and its unique ability to be used again and again to create something new. It also underlines the respect we owe this splendid material and the way a sensitive spirit can use it to create works of immense expressiveness.

“For the last twenty years, I have been collecting all the wood I can find,” explains Molinari, *“and I use it to express whatever I like. I have always worked with wood. I began by building and repairing furniture until I began to make real wood booklets, small 32 millimetre cubed blocks of wood made from any kind of wood arranged in a box along with a description card. Then I began collecting sawdust too and packing it into small bottles, because all these woods are natural and they all have their*





own special fragrances and precious sensations ... each one is completely unique.”

Molinari has transformed his genuine passion for wood into an expressive art form. The small blocks of 351 different types of wood that he has found up until now don't just finish in his anthologies, they also become the bricks that make up his pictures, sculptures and magical boxes. The common motif is the idea of giving new life and meaning to certain icons of "Italian Style", milestones of that unique Italian ability to merge product and imagination, dream and object. These works are dedicated to Aldo Rossi's "Cupola" coffee maker, as is the covering – again made from a few thousand blocks of different types of wood – of a 1963 **Vespa 50**, another icon of Italian design, that now greets visitors at the Scm Group showroom in Rimini.

It was right here, in this showroom, that Molinari moved on the 10th of February last to begin work on his "500 kube". A powerful artwork that captures the expression and unique manner of woodworking that this craft-artist achieves using traditional Scm Group machines.

The work will be completed at the Scm Group stand in **pavilion 11** at Ligna 2015, the hall of the tradeshow dedicated to machines for craftsmen and small and medium-sized businesses. The ideal environment for Molinari to finish his artwork and continue this new experience that combines art, wood, design, technology, dexterity and creativity.

www.molinariebanista.it

GAMADecOR - GRUPO PORCELANOSA
(SPAIN)
STEFANI EVOLUTION ONE, MORBIDELLI AUTHOR
Furniture manufacturer, company of the industrial Porcelanosa Group

BOCONCEPT
(DENMARK)
MORBIDELLI AUTHOR M400
Furniture manufacturer with its own sale chain

DIESE ARREDAMENTI
(ITALY)
SCM MACHINING CENTRES
Boat furniture

KATIUSHA
(RUSSIA)
SUPERFICI BRAVOROBOT
Furniture manufacturer, full vertical integration (from forest to preliminary machining, from production to furniture distribution)

GRUPPO LESPLITINVEST
(RUSSIA)
DOORS ASSEMBLY LINE
Panel and hollow core door manufacturer

QUMEI FURNITURE GROUP
(CHINA)
CPC PACKAGING LINE
Furniture manufacturer with its own points of sale

TRADITIONAL SASH WINDOWS
(UNITED KINGDOM)
SCM ACCORD WD
Door and window manufacturer

MELGARI
(ITALY)
SCM ACCORD WD
Door and window manufacturer

WORDSKILLS
(SAO PAULO 2015)
SCM TECMATIC AND MINIMAX
Sponsoring the competition involving carpenters from all over the world

WANG MEI WOODEN WINDOW - ITD GROUP
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SCM SYSTEM 5 DOOR AND WINDOWS LINE
Manufacturing of doors and windows, company of the Chinese leading industrial ITD Group

FLEISCHMANN
(GERMANY)
ROUTECH OIKOS AND AREA
Timber Construction

NEUMANN
(POLAND)
L'INVINCIBILE AND SCM
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TIM BUTLER
(AUSTRALIA)
MINIMAX
Craftsman

HUNTON
(NORWAY)
CELASCHI PROGRESS
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(FRANCE)
ROUTECH CHRONOS HT
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MET
(ITALY)
SCM WORKING CENTRE AND DMC METAL SYSTEM
Aluminium and plastic machining for the production of screw feeders for bottling lines

MONTRACON
(UK)
ROUTECH AREA
The largest UK producer of trailers



PROJECT AND IDEA

SCM GROUP COMMUNICATIONS
Rimini

DESIGN

HOOP SRL
Faenza, RA

FILM SEPARATIONS

OLIMPIA VISUAL PLAN SRL

San Marino

PRINTER

RICAM
Rimini

maggio 2015



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