

scmgroup leader in
production process and technology

scmgroup leader in production process and technology uk

scm  **group**



vaulted table

3 months with traditional methods

1 week with scm group technology

designed by **bloomlab**

for "I wood like"

a project by **scm group**, federlegnoarredo, cultura legno

presented at **salone del mobile 2013, Milano**



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editorial

ligna

link between great ideas and great productions

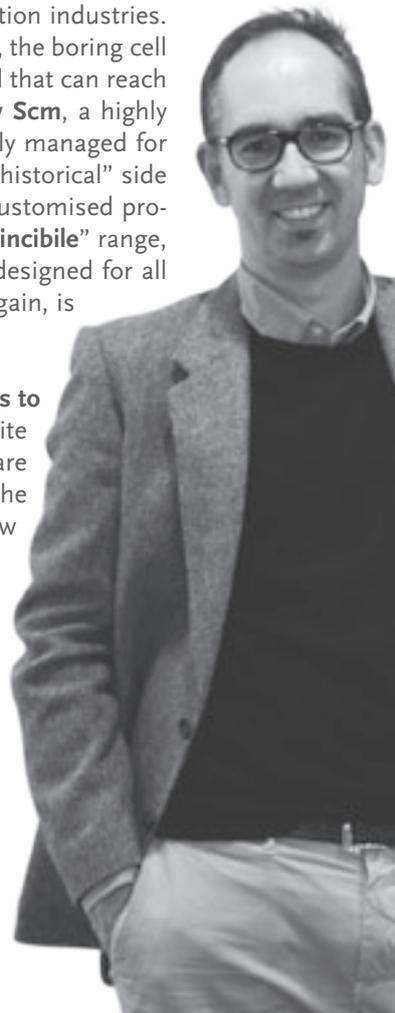
Design, idea, project, creation. Creating technologies that make it easier for an idea to take shape. Supplying the tools for effectively transforming a marvellous project into a product that's attractive, handy and practical, while guaranteeing **long-lasting competitive advantages** to those who use our technologies.

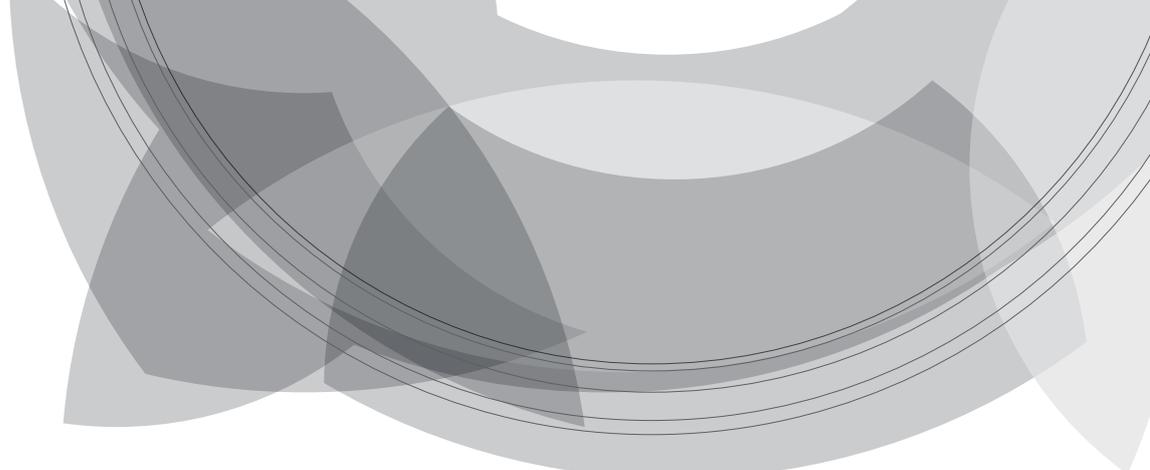
In this publication, we've selected some of the most significant experiences that clearly demonstrate how **we are the link between big ideas and big results, and Scm Group's ability to come up with technological innovation**. Continuously and in all the areas - from furniture to wooden constructions - where the thirty brand names of the group are active. Numerous machines, systems and work cells are new or have seen major overhauls, as described below. Solutions conceived to offer definite advantages to users, who can then produce better objects **in a more simple way, with lower costs and in a shorter time**, as told by the stories of our worldwide customers, recounted here.

In the sphere of the **"Leader in Production Process"** project, Scm Group emphasises its skill in designing "turnkey" factories and integrated solutions for the furniture and wood construction industries. In particular, the three work cells for producing furniture: the sectioning cell by **Gabbiani**, the boring cell by **Morbidelli** and the **"Easy Order Az" by Stefani** - a "smart" batch one edgbanding cell that can reach unthinkable levels of effectiveness and versatility. Then there's the **Accord WD cell by Scm**, a highly automated solution for batch window frame production, but one that can also be easily managed for special, unique pieces with unusual shapes. Our group has paid great attention to the "historical" side of things too, with the further evolution of woodworking machines and machines for customised production lots. Some things that really stand out are the latest interventions on the **"L'Invincibile"** range, and the new Scm **"Tech Z1 pro space"** machining centre for boring/milling - a CNC "designed for all joineries"; it requires the minimum space, extremely reduced set-up times and, once again, is very user-friendly.

The common denominator of all these technologies is the commitment to **helping users to carry out complex tasks in a simple, intuitive manner**. This is also made possible by a suite of software and programs (**Xylog Maestro, Watch, Proview, Professor Pappagallo**) that are continuously evolving to guarantee the full flexibility of the machine functions, from the versatile NC machining centres to the high-output production lines for door and window frames.

Another thing that all the technologies have in common is the **"Sav€nergy"** packages - a set of innovations, components, aggregates and expedients to ensure reduced consumption levels (of both energy and materials) and less wear on the parts. **Measurable savings** therefore, that also help guarantee competitiveness to those who choose our solutions.





All this shows once again that **Scm Group is the smart technology behind a good**. That statement isn't just a slogan; it's a firm commitment that received important confirmation from the prestigious **International Furniture Exhibition of Milan** - the world's biggest, most famous, and most visited trade fair dedicated to furniture and furnishings. That's where the **"I Wood Like - Handmade & digital crafting"** project was presented; a project set up by **FederlegnoArredo** (the Italian Manufacturers' association that brings together firms involved in the transformation of wood and its derivatives), **Culturalegno** (that spreads the culture of wood) and **Scm Group**. In short, it's the firm, practical demonstration of how the idea of a chair, table etc. is transformed into the end product, and how all this can be a true opportunity for the future of many young people. Thanks to technology too. **A unique, extraordinary début**, because for the first time woodworking machines entered the cathedral of world furniture, design, and the best Italian and international production.

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A prestigious occasion for showing how, in just over a week, a machining centre (an affordable investment for an artisan firm) can produce a complex, stunning table like the **"Vaulted table"** designed by the London studio **Bloomlab Architecture & Design**. The same work would have taken at least three months with manual/conventional methods.

Bloomlab also conceived the **"Frequency Wall"** - an amazing installation that distinguishes the image of the Scm Group stands. An architectural work in poplar OSB (produced by IPAN - an Italian firm, the only one producing it in Europe) based on the assembly of over 500 different shapes. A work that was made possible thanks to the use of the Scm Tech boring/milling machine, that once again demonstrates the potential of our machining centres as tools able to turn ingenious ideas into reality.

We're aware of the contribution that Scm Group solutions can make to those working with wood, and so we've chosen to actively put ourselves forward as a reference technological partner for our customers - from the individual artisan to the firm dealing with single batches and the major company that needs to produce enormous quantities. In order to be the link between big ideas and big production, with the utmost attention to what we consider the real revolution - **turning something complex into something simple**.

Raphaël Prati

Head of Communications for SCM Group



The special online section dealing with LIGNA 2013:
www.scmgroup.com/ligna

link
between great ideas
& great productions

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window and solid wooden door

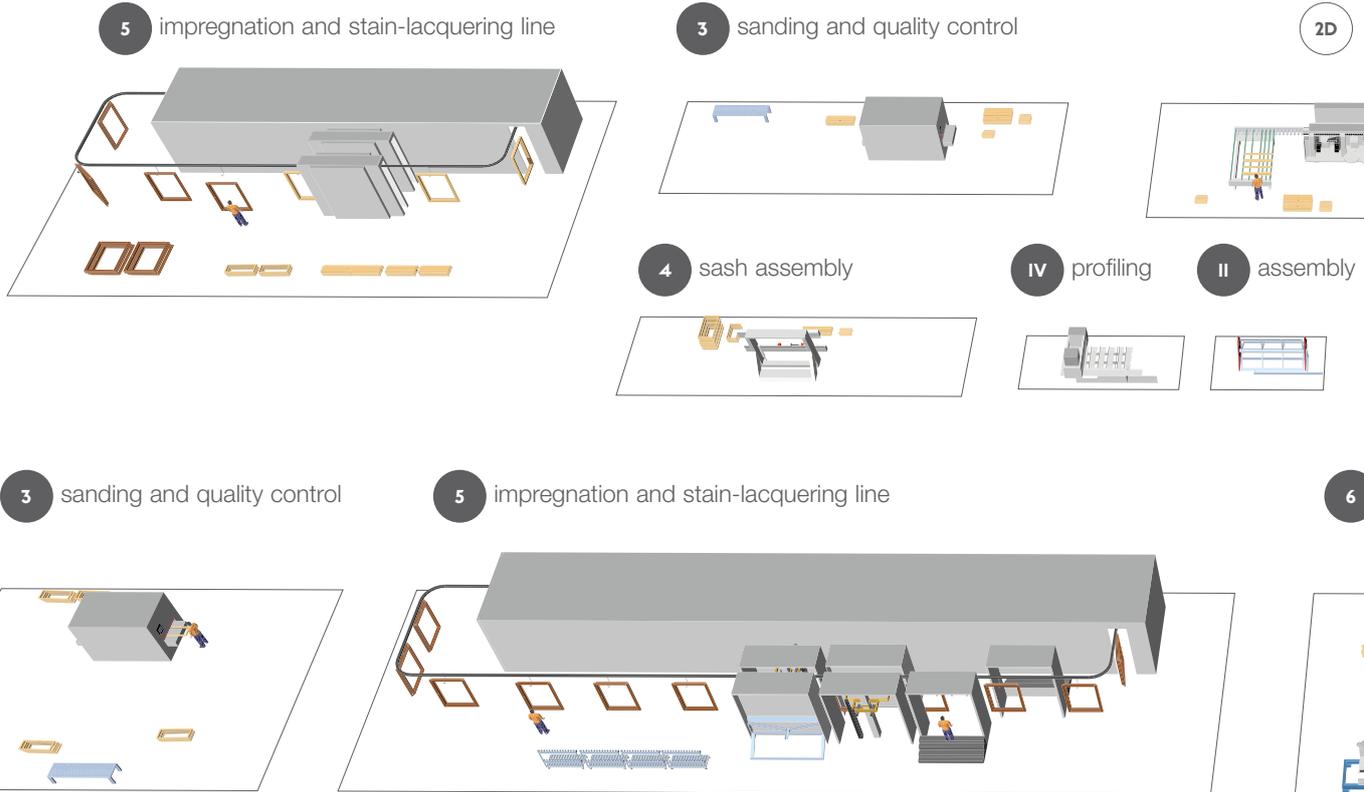
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6



See the interactive section on
scmgroup.com





window

production process

- I** **selected partners**
cross cutting
- 2** **scm - celaschi**
windows and doors cnc system
- 2A** **scm**
4 sides moulding
- 2B** **scm - celaschi**
tenoning
- 2C** **scm - celaschi**
boring & routing
- 2D** **scm**
profiling
- 3** **dmc**
sanding and quality control
- 4** **sergiani**
sash assembly
- 5** **superfici**
impregnation and stain-lacquering line
- 6** **sergiani**
frame assembly
- 7** **selected partners**
hardware, fitting and assembly
- 8** **cpc**
packaging

solid wooden door

production process

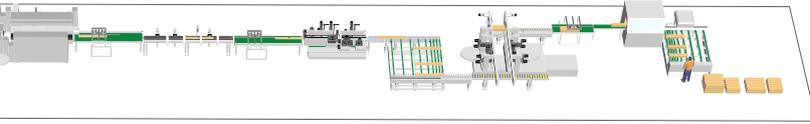
- raised panel door
- scm**
moulding
- selected partners**
assembly
- dmc**
calibrating
- scm**
profiling
- frame
- I** **selected partners**
cross cutting
- II** **scm - celaschi**
windows and doors cnc system
- 3** **dmc**
sanding and quality control
- IV** **sergiani**
assembly
- 5** **superfici**
impregnation and stain-lacquering line
- 7** **selected partners**
door assembly
- 8** **cpc**
packaging

2 window and door cnc system

2C

2B

2A

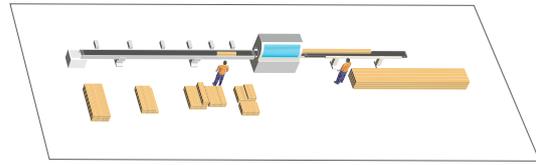


1 cross cutting

special & prototypes dept.



1 cross cutting

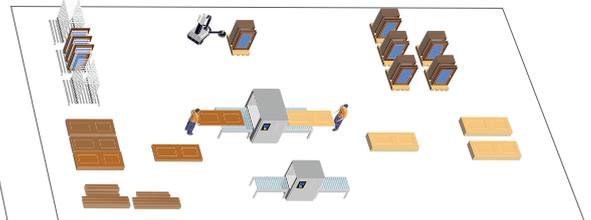
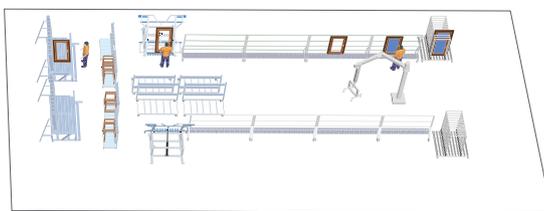
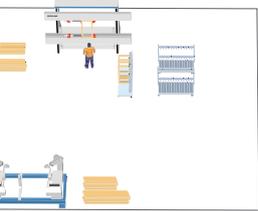


in

frame assembly

7 hardware, fitting and assembly

8 packaging



out

Up to 150 complete windows or solid wooden doors per shift in batch one

The window production process involves making wooden or wooden-aluminium sashes and frames. The solid wooden doors production process involves making frames and raised panel doors. Production plant featuring complete and flexible lines for the production of doors and windows varying in type and dimensions.

The main technologically advanced solutions for business furniture production process:

- the new CNC working cell for windows and doors **SCM Accord WD**.

Production integrated system main features:

- **System capacity: 120 windows/shift (frame and 2 sashes) and 80 doors/shift**
- **Staff required: 50 operators**
- **Surface area required: 10.000 m²**

window and solid wooden door
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accord wd

maximum productivity of an integrated cell for windows and doors with the maximum flexibility of a machining centre.

The main objective of many manufacturers of windows and doors has been the automation of the work cycle, in order to remain competitive in an extremely demanding market, which requires quality products at prices that are difficult to achieve with traditional machinery.

The integration of a machining centre with an automatic loading and unloading system has the great advantage of not requiring the constant presence of an operator, but at the same time loses some flexibility, focuses the production on just one type of product and with work cycles that are not always fast.

Accord WD, SCM's machining cell, revolutionises this trend: as well as the advantages of **high productivity levels thanks to the automatic loading and unloading of the workpieces**, it maintains the **typical flexibility of a workcentre** without sacrificing anything in terms of performance.

Manufacturing special windows or other types of products is extremely simple, because the cell is fitted with the **"Pro Speed" safety system introduced on SCM's latest range of FX machining centres**, which ensures access to the worktable with manual loading and unloading with utmost freedom of movement.

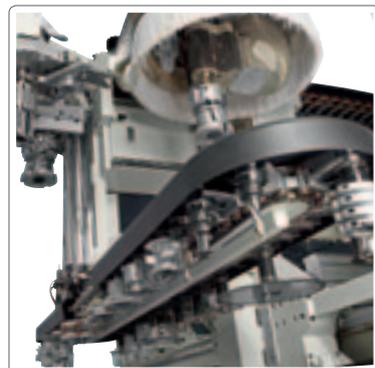
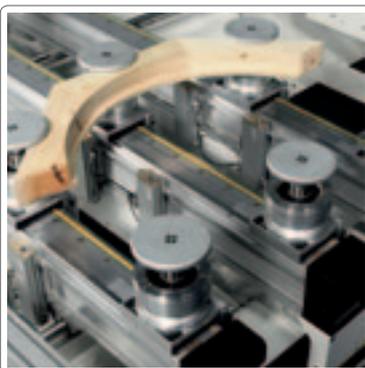
The possibility of pendulum machining ensures that the productivity is at the highest levels for the category.

The work cycle is never interrupted: whilst the machine operates on one half-table, the finished workpieces are unloaded on the other half-table and the new ones can be loaded.

Each single machining operation is extremely fast.

Accord WD has a magazine that can house up to 48 tools with the **"Mach 5" shuttle, which replaces machining tools in just 5 seconds** and a specific machining unit that guarantees high routing speeds and excellent finish quality.

Accord WD is simple, fast and practical. It offers the best solution by marrying productivity and flexibility.



new!

**window and
solid wood door**
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felbermayer

When a window manufacturer invests 17 million Euros to fully automate production on the basis of the most modern criteria, he must have a good reason for feeling so confident. That's what Helmut Felbermayer did, and he's now sure - and proud - to possess one of the world's most advanced window-producing systems, covering an area of over 12,000m².

This company, founded in 1963 and today boasting 52 employees for production and technical design along with another 40 for assembly, is specialised above all in wooden and aluminium doors and windows. Its turnover amounts to 18 million Euros. A figure that sums up around 30,000 windows, each with two operating pieces and 14 components. They are supplied mainly to the commercial building and residential building (with tax incentives) sectors. And given that these orders are assigned almost entirely by means of public tender, the deciding factors are not only quality but also price and quick delivery times.

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Reason more than enough to convince Helmut Felbermayer to fully automate his window production and make it highly flexible, ready not only to meet all the purchaser's needs but also to offer better solutions than his competitors. All this means, for example, that the entire production cycle is monitored and managed by means of RFID technology (including the final surface coating lines and the automatic assembly of the window frames and glass), and this in turn allows him to produce the high number of pieces required.

Another necessary condition, however, is the optimisation of all the machining processes regarding the window components. In this case, the company (constantly guided in its choices by the economic and commercial aspects) turns to its long-term partner with whom it has established a firm relationship of mutual trust: SCM. As all the machines and systems for this production sector had previously come from SCM (the latest being the "Windor 100" angular system), the choice - from the vast range of products available - fell on the "System" model for windows for the main production area, and the "Accord 40 FX" CNC processing centre with automatic table for special windows.

The "Windor 100" had already made a name for itself, thanks to its speed and flexibility, and the new "System" is establishing new reference standards in terms of speed and reactivity, as the wooden components emerge from the system completely finished and equipped with all the necessary borings and millings, so they don't need any further machining operations. The same volume can therefore be obtained in one single shift rather than three (as in the past).

In response to the question about why this window frame company has always used SCM machines, Helmut Felbermayer gives an almost mundane answer: *"You see, every year we supply around 30,000 IV 72 and IV 90 windows in wood/aluminium to very demanding customers for whom price, quality, flexible response to differing needs, and quick delivery times are fundamental factors. That means we can't afford to experiment when it comes to our production equipment. Our long-term collaboration with SCM gives us a feeling of confidence and trust, and that means consultancy and assistance as well. So, as I said earlier, next time I have to make a choice I would do again exactly what I did before".*

**window and
solid wood door**
scmgroup leader in
production process and technology



Helmut Felbermayer

with SCM Group Deutschland staff





case history

technological solutions
for the production of door/window frames

www.zacchelloinfissi.it

zacchello infissi

Evolved woodworking for door/window frames

For Zacchello Lorenzo, the move from furniture to door/window frames marked a shift from pure artisan work to the most innovative technologies. A path sustained by the partnership with Scm Group

Strong specialisation and artisan skills, combined with innovative machining technology in line with the emerging figure of the “evolved artisan”, are the ingredients that distinguish the experience of **Falegnameria Zacchello Lorenzo** from Fossalta di Trebaseleghe (Padova) - manufacturer of windows, reinforced entrance doors, internal doors and shutters.

The story began thirty years ago, with the setting up of this entrepreneurial business in a small garage; just a few used machines, a lot of manual work, and a great deal of enthusiasm, shared with his wife Vania. For Lorenzo Zacchello, former factory worker in the furniture field, this new path unfolded gradually, with the extension of the business from just classic benches, basement rooms, roofing and tables to **wooden door/window frames** in the early 1980s, using a simple combination machine. From the first items, produced for his own home, the door/window frame is now the core business of this joinery, sustained by the purchase of machines and equipment to ensure flexible production that meets the needs of its customers in terms of both type and quantity. And this new set-up comes as the firm is about to pass into the hands of the second generation - Lorenzo's son Daniele, and his daughters Elena and Aurora. The technological partner that has played a fundamental role in the development of Falegnameria Zacchello is **SCM Group**; a strong relationship of mutual trust and friendship has been built up over the years, as **Lorenzo and Vania Zacchello** confirmed during our interview.

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Mr. Zacchello, you started out with furnishings and then took the road of door and window frames...

«In all truth, we've never abandoned the furniture side of things. We still produce furniture for our customers, but today that means 14 employees and a turnover of 1.2 million Euros for the Veneto area alone; for the past 20 years or so, we've been specialising in door and window frames.

*When we set out on this new road, our aim was to meet all the customer's needs with **product quality**, excellent finishing, and aftersales assistance. Today I still have customers who've been with me for 20 years and keep coming back. My son Daniele is now involved in choosing the new technologies; in the coming years, he'll be the one leading the business. To meet the requests of the market, we've acquired machines for producing door/window frames, including the machining of special pieces and curved pieces. Scm's contribution in terms of support and consultancy has been fundamental, and has helped us to grow. The latest machine purchased was the “**Dmc Planetario**” calibrating machine. We immediately saw the difference with regards sanding, rustication and piece finish: it highlights the tactility of the wood and eliminates the manual cleaning and finishing operations».*

Are you satisfied with Scm?

«Yes. We choose to purchase Scm Group machines for their functions and because of the personal experience that we've built up. When a fire caused by the spontaneous combustion of paints in the height of summer destroyed the entire plant, Alberto Segantin of Scm, who we already knew well and who is still like a friend for us, came here straight away. Sitting at a plastic table outside the burnt-out warehouse, we planned the purchase of the new machines. It's a personal relationship that goes back 30 years. From the technology viewpoint, the



**window and
solid wood door**
scmgroup leader in
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Adriano Aureli

member of the SCM Group
Board of Directors, visiting Zacchello
Infissi. Under special observation: the
DMC sanding machine with the plane-
tary system.

choice of the machine makes a difference. Thanks to the Scm machines, we've been able to carry on even in a period of dramatic economic slump, producing and maintaining our competitiveness via our prices, with optimum work speeds and excellent finishes. I remember that the day when the latest machine was installed, our workshop changed: we dealt with an important job order requiring the calibration of 3x5 metre arcs in just a few hours, eliminating a work bench and ensuring the best product quality».

For the other joiners, do you perform mainly special machining operations?

«Not only that. For example, in the case of joiners close to retirement, who have closed their workshop but still have a showroom, we manufacture their products on the basis of the specified measurements and criteria. They then look after the assembly aspect. Over the years, this type of collaboration has forced us to implement our technological set-up. We're now able to produce 450 windows a month, with a high degree of flexibility that allows us to meet the needs of architects designing windows with unusual or non-standard measurements, or with different types of opening like the lift-and-slide windows or the flower system».

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Mrs. Zacchello, many firms in the Lombardia region have closed. What's happening here in Veneto?

«Our advantage is that we work for other joiners who, unlike us, don't have the certifications but they're still aiming for competitiveness. We've always kept abreast of evolutions in this sector: we've invested, learnt, and asked for help from our suppliers to always be up-to-date with regards innovations relating to hardware, glass, and everything else that makes up a state-of-the-art window frame. When we purchased specific types of tools for machining window frames, we were careful to examine exactly what was coming onto the market for the future, and we noted the growing importance of certifications like that of CasaClima. This encouraged our decision to go to Bolzano and deal with these certification parameters. We invited specialised technicians into the company, and we still have a German expert who help us constantly with all those aspects linked to energy savings, technological performance of door/window frames and the interaction between these factors and the materials used (from the glass to the type of wood).

Another element that distinguishes us from other manufacturers is the fact that we search for the quality of the wood first and foremost. We only work with laminated timber, from oak to mahogany, ash, fir or pine, depending on the type of product and the price range. This attention also results from the fact that certain types of wood are not accepted by CasaClima, as they are hard and therefore don't insulate as well. We purchase our raw material in Val di Fiemme and, if it doesn't satisfy our quality standards, we send it back. We also pay special attention to the certifications».

Those who were able to keep up-to-date and offer their customers good quality have survived...

«Yes, because a window frame is now considered along the same lines as a piece of furniture. It's a real part of the home furnishings - not just a component of the outer shell, but increasing the overall comfort. The current innovation is tactility; people want to really feel the wood. For kitchens, the varnished open-pore version is also requested. We also work with wood-aluminium. The metal is covered with a wood-effect film and positioned on the outer side when the window frame is hard to reach for the maintenance of the simple wooden profile».

S

special

Windows and solid
wooden doors

www.windowcity.com.cn/english/

international window city

Beijing, China

Last January **SCM Group China** opened a new permanent show room in Beijing, at the **China International Window City**.

China International Window City, which covers over 5,000 square metres, is Asia's largest retail and exhibition space dedicated to windows and doors.

SCM Group's 450 square metre showroom and demo area are part of China Window Team's activities. Set up in 2013 the team's aim has been to respond to the specific requirements of Chinese window manufacturers and provide customised solutions. From now on all the latest technologies and the most advanced machines by SCM Group will always be available for demonstrations.

The first month of activity was very encouraging: numerous clients visited the showroom and the demonstrations helped the sale of the **SCM Accord 30 FX**, **Windor 20** and **Superset NT** machines.

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housing wood components

scmgroup leader in
production process and technology

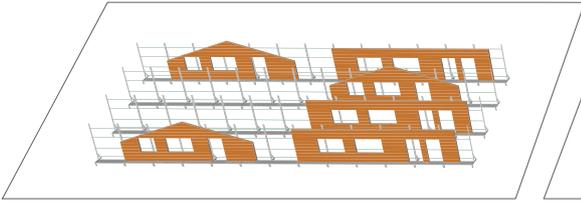
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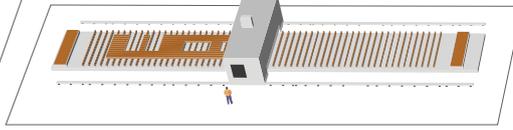
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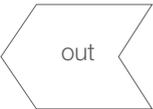
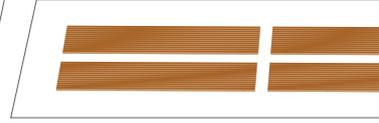
storage area



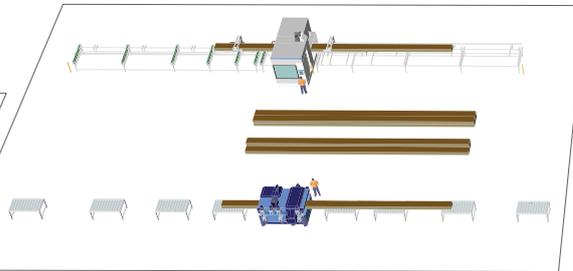
6 cnc routing



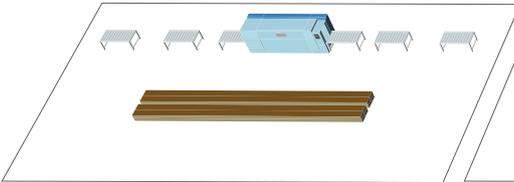
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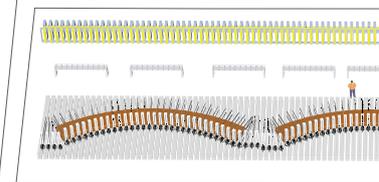
VII cnc routing



VIII impregnating



V pressing



xlam

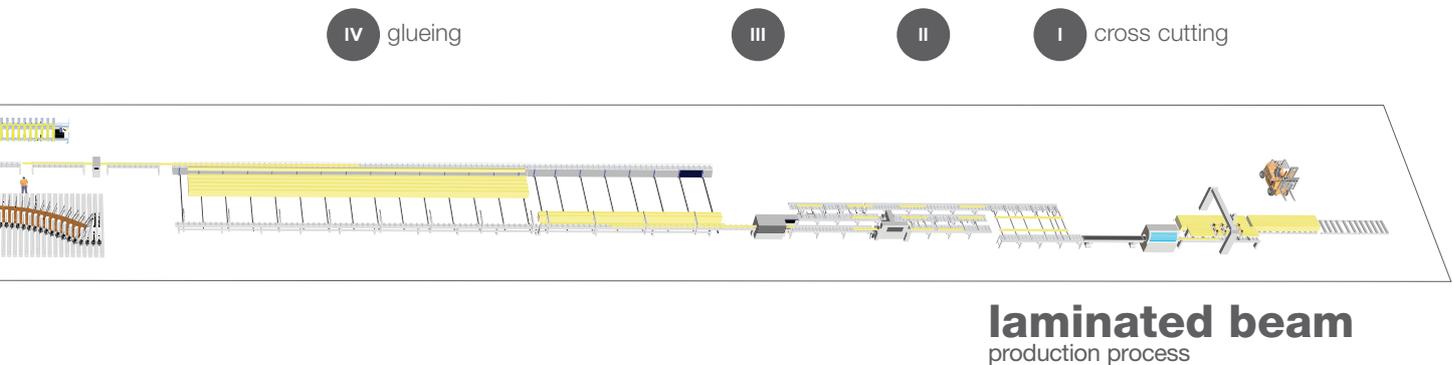
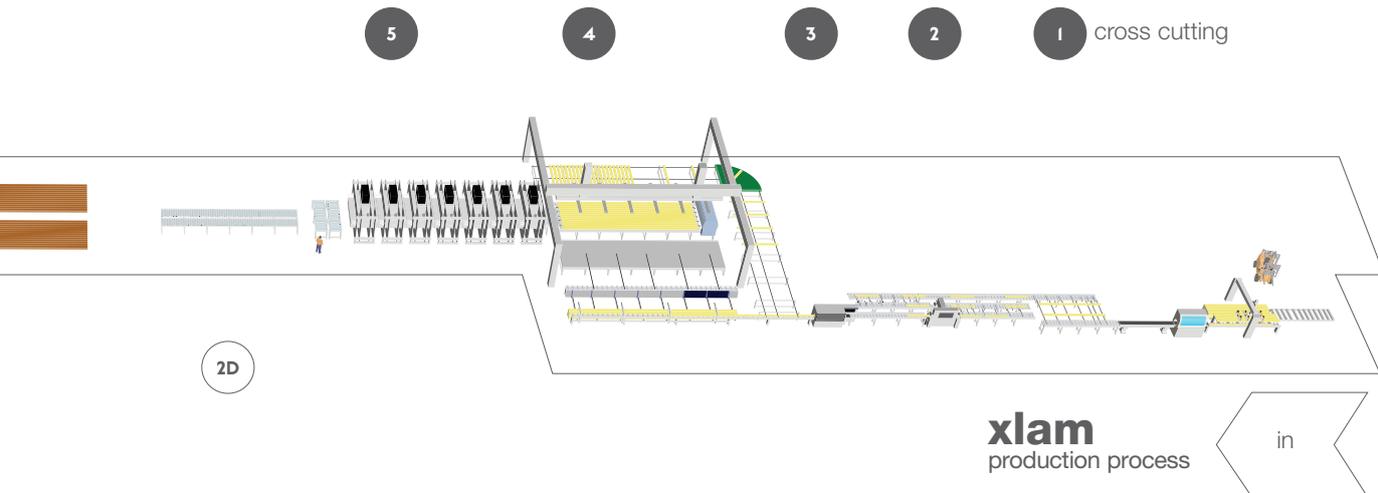
production process

- I** selected partners
cross cutting
- 2** paoletti
finger jointing
- 3** paoletti
moulding
- 4** mahros - paoletti
X-lam composition
- 5** sergiani
pressing
- 6** routech
cnc routing

laminated beam

production process

- I** selected partners
cross cutting
- II** paoletti
finger jointing
- III** paoletti
moulding
- IV** paoletti
glueing
- V** sergiani
pressing
- VI** paoletti
moulding
- VII** routech
cnc routing
- VIII** selected partners
impregnating



no machining limits and compact space with 6 axes technology.

The housing wood components production process relates to the construction of two separate elements: XLam walls and structural beams Production plant featuring an integrated solution for medium productivity and high flexibility.

The main technologically advanced solutions for housing wood components production process:

- new 6 axis working centre **Routech OIKOS** to structural beams processing
- 5 axis working centre **Routech Area to X LAM** walls processing
- **Sergiani pressing system** for the curved beams processing.

Production integrated system main features:

- system capacity: **100 m³/shift**
- staff required: **15 operators**
- surface area required: **12.000 m²**

housing wood components
scmgroup leader in
production process and technology



oikos

No machining limit and reduced dimensions with the **6-axis technology.**

The new Oikos as described by Giovanni Tiezzi, Technical Manager of Routech.

Being specialists encouraged us to embark on a new challenge, several years ago, in the wood building sector. This project was assigned by the group's management so that we were also present in this specific sector.

Today, we are offering the rapidly expanding wood building sector the **new version of the "Oikos"** which is highly innovative and even unique among the solutions for beams and wall elements.

The previous version was one of the few solutions that combined the philosophy of a machining centre with the concept of a "routing and cutting centre", i.e. it optimised the beam entering the machine to obtain the necessary elements with the minimum amount of waste: all you had to do was load the cutting program generated by the roof design software and in a few minutes, production could begin. These concept shave been further developed in the new "Oikos".

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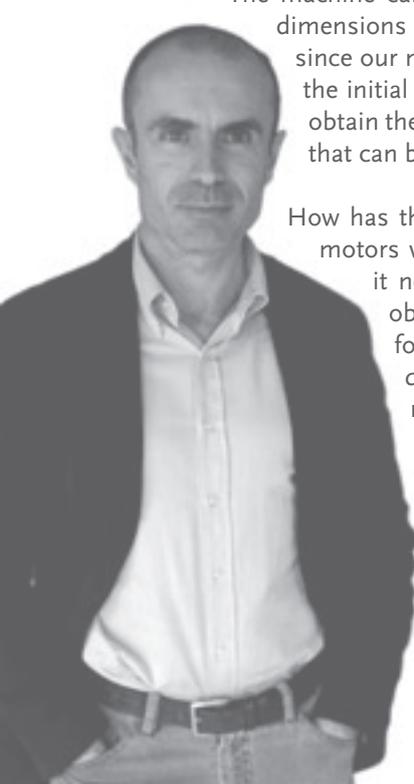
That's not all: from the very beginning, we realised that the success of these machines strongly depends on what you cannot see, that is to say, the **effectiveness of the software** that we decided to develop in-house. This was a very demanding task but today it means that we are able to guarantee excellent performance and results, even more so if you consider that we are dealing with complex machining because it is highly three-dimensional and nearly always "Batch 1", with a cycle that involves producing very thick elements each one different from another.

We have given the machine a high level of "**autoprogramming**"; on a practical level, our software makes programming much quicker since it "reads" what is imported by the CAD software in "**BTL**" format which has become a standard that is perfectly compatible with the most widely used software. Only minimum and very rapid intervention by the operator is needed to go from the design file to production of the wood elements.

The machine can also be programmed in parametric mode: the type of machining is selected, the dimensions are loaded and the machine starts to operate. It does this with the **highest precision** since our machining centre is designed using Finite Element Analysis (FEA) i.e. simulation from the initial stages of the project of the performance and reaction of each part of the machine to obtain the performance that we have set. This precision allows the production of wood elements that can be perfectly assembled with easily calculated installation times.

How has this been possible? By examining the machine dynamics and using adequately sized motors with software that uses a series of algorithms that give the machine the intelligence it needs to **optimise each movement** without wasting time and using the sixth axis to obtain the most rigid machine configuration which is therefore the best one available for a specific machining operation. Put simply, higher speed with the same precision and quality! With the help of the Ecoprogram project co-financed by the Tuscany region, the new "Oikos" also contributes to a significant **reduction in consumption** by recovering braking energy".

The Oikos is a solution that is suitable for a very wide range of users and ideal for anyone involved in roofing, anyone who often has different requirements and outside contractors. It is perfect for more complex machining.



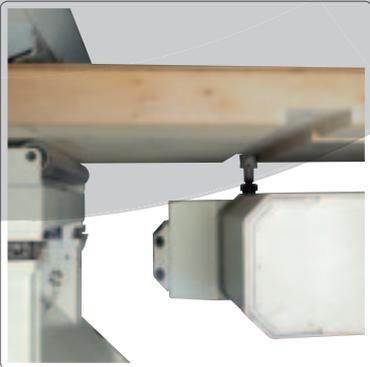
Giovanni Tiezzi

technical department manager Routech



housing wood components

scmgroup leader in
production process and technology



When designing and constructing it, we had a large, rapidly expanding sector in mind which will be a **fertile field for collaboration** between SCM Group and Routech. We are already working on new projects which will allow us to set new standards for machining truss walls in the same way as we did for beams.

about Oikos...

There can be different ways to design the same roof. Some of these methods are not compatible with technical features required by the woodworking technologies. This problem can be solved before starting the production, thanks to a software solution integrated in "Oikos" allowing to create a virtual environment and see the machine in action detecting potential problems or "impossible operations". The operator can solve the problem on time to the benefit of process efficiency in order to avoid errors on beams and elements that have significant costs.

As to speed: a strong contribution to the global speed of the machine comes from high performance of the tool changewith eight positions and also with stations dedicated to the blade and potential optional aggregates that can be used for mortising, deep drilling operations or for a chainsaw. The basic version features a 500 mm blade, a diameter allowing the operating unit to reach the highest cutting speed on every section.



Watch the Oikos webcast online!

bit.ly/OikosWebcastEN

Watch the Oikos software in action!

bit.ly/OikosSwEN



stabilame

200 wooden houses a year

Design and ecology, plus security and insulation: the Oikos machining centre brings contemporary style into the "home".

Although houses in Belgium are traditionally built in brick or stone, there is a company that can build more than 200 wooden houses a year, in different styles and using different construction techniques. This company is called Stabilame and is located in the industrial district of Mariembourg. Since 1989, when Bruno, the elder son of Michael Rich, transformed the family carpentry firm - it has been creating impressive, innovative wooden structures which are both attractive and highly functional. «*Today nearly 16% of houses have a wooden structure*» explained Chief Executive Officer Laurent Riche, at the helm of the 70-employee company which is part of the Rich Group family and includes the Carpentry Rich and Enercobois brands. Though the company has a more ambitious goal: to increase the number of wooden houses, particularly in France, where regulations on insulation have promoted the use of this natural material. And to improve on 2012 turnover, of 10 million euros, expanding abroad. «*Stabilame has a consolidated position in Belgium, but exports, which account for 35% of our turnover, play an important role, particularly in France, Luxembourg and Congo*». Pine and fir are the most commonly used materials, «*but in some particular cases, we also use larch, oak and Douglas*».

Having a wooden house rather than a conventional structure is motivated by more far-reaching requirements.

«*In 20 years, consumer demand has evolved considerably*» said Mr Riche. «*In the past, demand for wooden homes was driven by aesthetics: wood has a visual impact, plus it is a natural material and quick construction times also play an important part. Today, besides these three factors which are still valid, consumers are seeking greater insulation and a structure that can easily adapt to a contemporary style. Wooden houses perfectly meet new and increasingly complex standards for high levels of insulation for low energy consumption and passive houses*».

Yet the challenge is even more interesting on a design level, because of building regulations...

«*Each house we build in Belgium is different from others. This is because we comply with stringent requirements, that often differ from region to region, and require architects and designers to take an increasingly original approach, adapting design needs to contemporary structures, so as to meet customer requests. We do not design the style or plan the design of our customer's home: our design department enables us to adapt our construction systems to what the designer and end customers dream of as their home*».

How is the production cycle organised?

«*All wood processing stages - from the raw material to drying, gluing the beams and machining on our equipment - take place at our company. No work is outsourced. We have long-term experience and a knowledge of building systems that have enabled us to integrate different techniques and different methods of construction, from the most traditional to the most "technologically advanced", while recovering even the smallest piece of wood. We have different, highly-automated production lines, with just a few operators, to produce beams and wooden walls. With 5 machining centres that have automatic loading and unloading systems, we can finish each item with a "just in time" logic*».



housing wood components

scmgroup leader in
production process and technology



Is manual work still essential or has it been superseded by new technologies?

«It is still essential, particularly for inspection, and for finishing visible parts. The eye and expertise of a professional are often irreplaceable when it comes to achieving the highest quality finish. Our production line is not fixed: we prefer the utmost flexibility and human intervention is always planned for. A plus of this approach is the full integration of CAD/CAM systems with our machining centres or production lines, a choice that ensures maximum flexibility - which is so vital for businesses in today's world. Flexibility, quality and service at the right price are key to success, which can only be achieved if the right technology and method are adopted».

The equipment to achieve these results plays a fundamental role. Starting from the impressive Oikos HT 12 by Routech.

«This is our latest investment with the SCM Group. We needed a solution to combine with our machining centres that process standard sized items. With the Oikos HT 12, we can machine large items on all six sides, with a very high quality finish. We chose this machine, after different experiences with solutions of other manufacturers. The SCM Group is a reliable partner and provides an efficient after-sales service. This is also due to the special connection with Routech technicians, who are always extremely willing to help and respond during each stage of the purchase process, until the machine is fully operative».

How do the concepts of sustainability, energy saving and low environmental impact play a part in this complex production cycle?

«Sustainable development is our priority. The production of wooden structures and their rapid installation uses less energy compared to a traditional structure. We were one of the first companies to use finger joints to make beams and wooden items, to optimise the use of raw materials. We take great care with waste management, and the waste from our processes is carefully sorted. We make briquettes with our waste wood, which are used for heating at our company and are also sold».



The Oikos at Stabilame was purchased directly at the Technodomus fair of Rimini in April 2012.

In the photo, in front of the working centre center exposed and operating on our stand:

Laurent Riche, CEO

Raphael Prati, communications manager SCM Group

Rony Kyndt, SCM Group Belgium

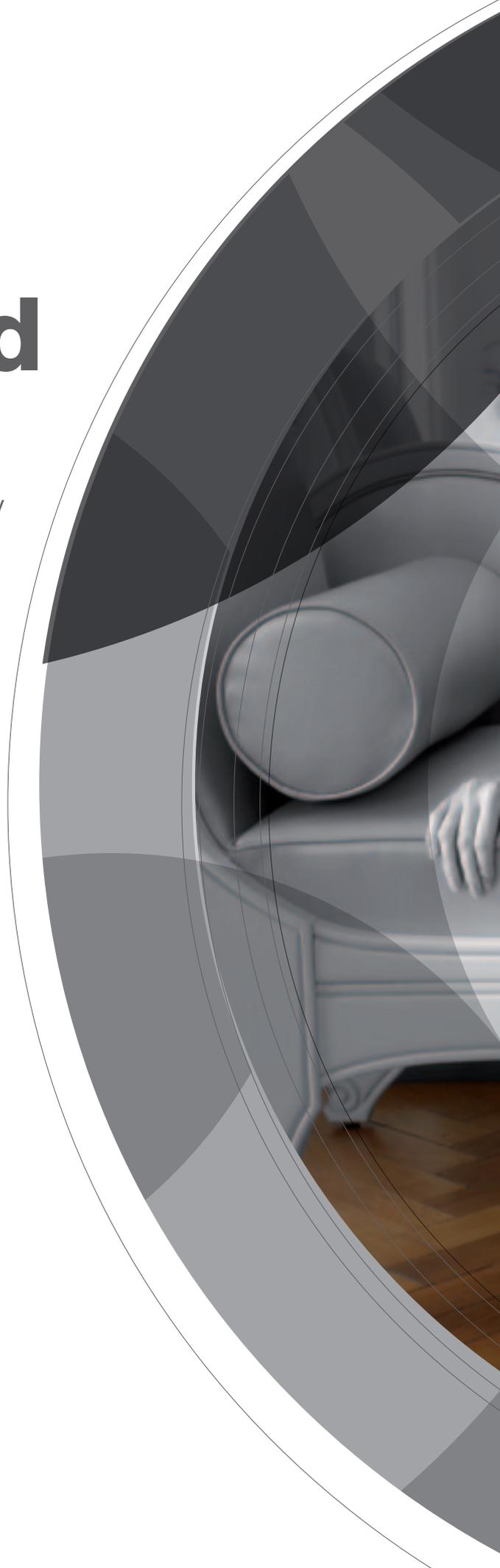
engineered flooring

scmgroup leader in
production process and technology

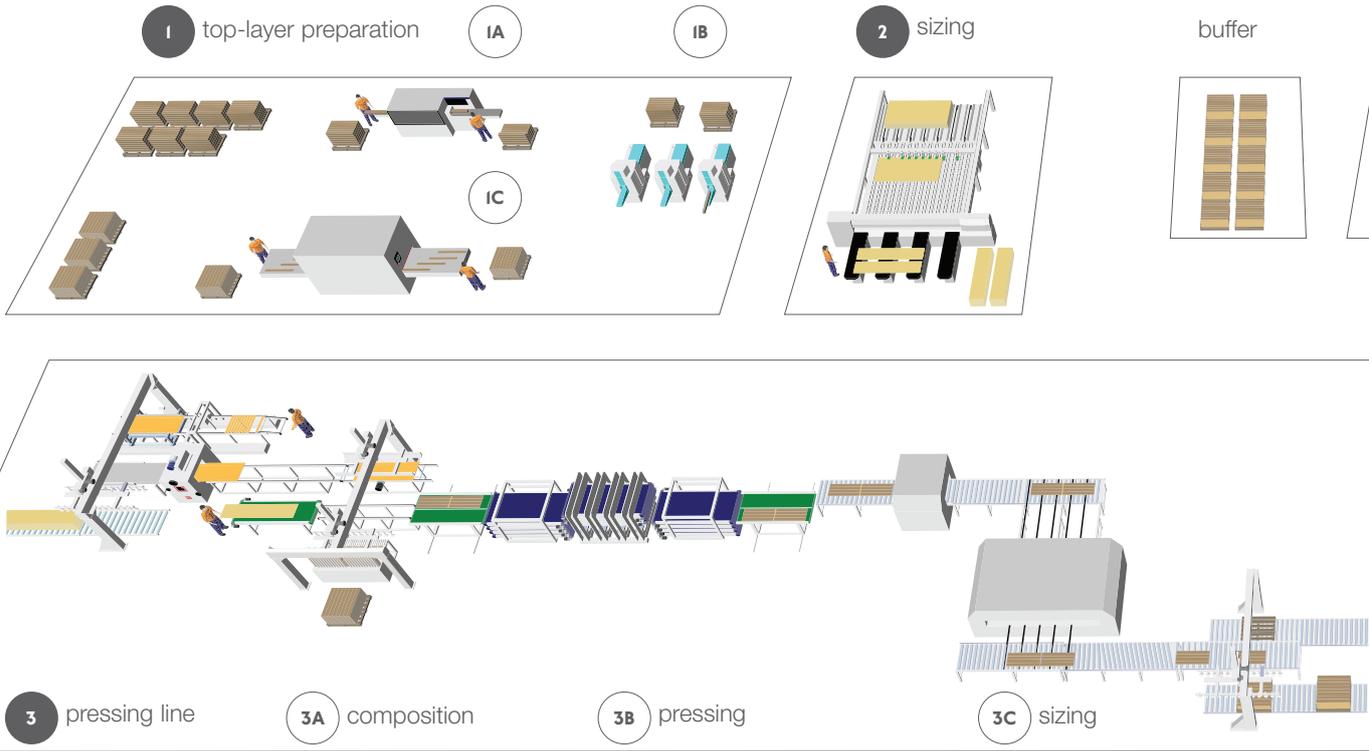
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See the interactive section on
scmgroup.com





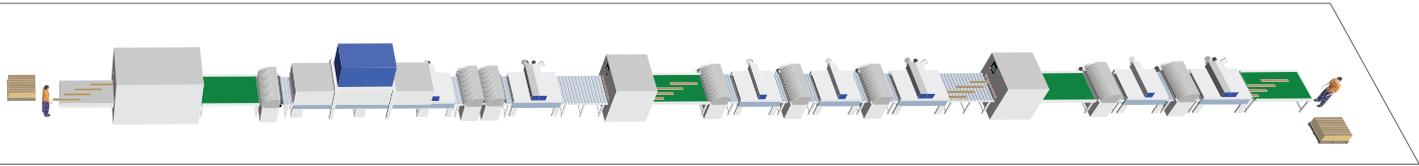


engineered flooring

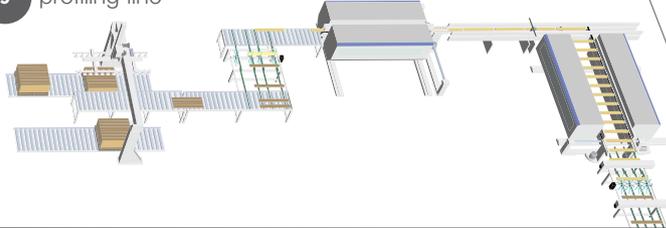
production process

- I** top-layer preparation
- IA** scm moulding
- IB** **selected partners** thin cutting
- IC** dmc calibrating
- 2** **gabbiani** sizing
- 3** pressing line
- 3A** **mahros - selected partners** composition
- 3B** sergiani pressing
- 3C** celaschi sizing
- 4** superfici - dmc finishing line
- 5** **mahros - celaschi** profiling line
- 6** **mahros - cpc** packaging

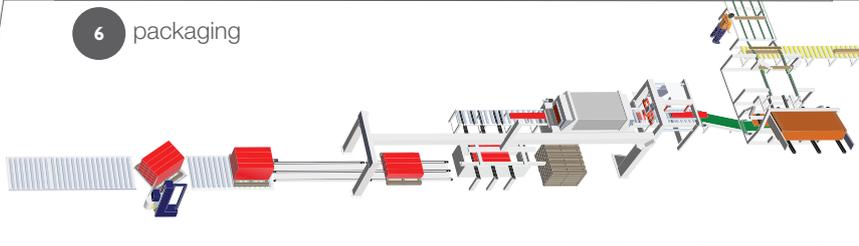
4 finishing line



5 profiling line



6 packaging



out

50 years of research and technology in flooring solutions

for a variety of materials, providing flexible productivity and perfect finishing quality

29

The parquet production process differs depending on the type of flooring required: 2 and 3 layer parquet, laminated flooring, solid wood parquet. SCM Group offers integrated technological solutions for each different type of flooring products and also in response to new market trends: machining for luxury vinyl tile, cork, ceramic, raised and wall cladding products.

Production plant for the production of 2-3 layer parquet flooring, performing a high level of technological automation and entire manufacturing integration.

The plant is engineered for a flexible medium output production.

The main technologically advanced solutions for engineered flooring production process:

- New longitudinal and transversal **profiler Celaschi Team**

Production integrated system main features:

- System capacity: **1800 m²/shift**
- Staff required: **17 operators**
- Surface area required: **3500 m²**

engineered flooring
scmgroup leader in
production process and technology

team

new parquet profiler

key words: rigidity and speed

Today parquet manufacturers aim for very high speed production. Based on this requirement, Celaschi presents the new **Team profilers**, able to **process from 40 to more than 250 metres per minute**.

A wide range of materials can be machined: from wooden slats made of two or three layers and made of solid wood, to mdf and hdf slats with laminate - melamine or ceramic coating. The slats may have tongue and groove joint systems, or klik joints of various types, including 1G, 2G, 3G, 4G, 5G. **Team can machine slats with widths ranging from a minimum of 58 mm to more than 300 mm, lengths from a minimum of 300 mm to more than 6000 mm, thicknesses from 6 to 35 mm and above.**

Team design features:

- Integrated structure in a single, thick “closed loop” steel block
- Integrated belt supporting longitudinal members which allow high precision linearity of the belts where the chains slide, with maximum tolerances of 0.05 mm.
- Turrets inserted in the “closed loop” structures, the dovetail guides in which the slides and motor-holder crosses run being fixed to these turrets. The guides, crosses and slides are cast iron single block elements, eliminating any vibrations from machining.

In addition to the machining heads for making joint profiles by profiling, there is **special optional equipment**:

- Painting units for edges (chamfers), for laminate - melamine parquet slats.
- Systems for size checking slats and detecting any machining imperfections
- System for impregnating edges with water-repellent liquid to make them impermeable to moisture
- “Tongue” insertion system for Klik 5G locking.



**engineered
flooring**
scmgroup leader in
production process and technology





stia

The “made in Austria” sustainable parquet.

A company that produces parquet floors of the highest quality with cutting edge technology.

With one peculiarity: it is a company founded by the Admont Benedictine monastery.

Immersed in a valley of the Stiria region in the heart of Austria, surrounded by splendid mountains Stia is located in Admont, in the shade of the Benedictine monastery's bell tower. The tradition which binds Stia to wood work dates far back in history, and exactly in 1074, the year of the foundation of this monastery which has always been active in timber production and sale. But it was in 1874, the year of the turning point, that a new, more industrial approach to woodworking was adopted which, in 1972 took on the name of Stia, a company combining a great tradition in the carpentry sector with the use of modern and sophisticated production systems. It changed name, but the company remained the industrial arm of the monastery and in the nineties began to produce natural wood panels for the furniture, fixtures and flooring sector. Today, Stia has 320 employees, a turnover of 55 million euros and an annual production turnout of one million seven hundred thousand square meters of wood products. It exports more than 75 percent of its products, mainly in its markets of reference which are Italy, Switzerland and Germany but also, through its agents and retailers, it is present worldwide. We are greeted in this new and modern facility entirely built in lamellar wood by the smile of marketing director, **Daniela Foessleitner**.

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Let's begin with the product, what are the characteristics of your parquet floors?

«First of all we call it “natural wood floor” to distinguish it from the term “parquet” which has become too generic and describes completely different types of products. Our floorboards are made in three layers: the upper layer and the lower layer are made of the same type of wood, or partially, in the finest coniferous timber. This gives a particular stability to the “Admonter”, the “trademark” which characterizes our production. The high quality of our floorboards is given also by the accurate check in all stages: from the selection of the wood to the delivery of the finished product, an Admonter undergoes as many as 15 quality control checks. Every single piece is a single block of wood which can be up to 5 meters and have different personalized designs. Also, our product is completely natural and is healthy for the environment: we say that our Admonter natural wood floors enrich our lives».

Why promote the use of wood in the house?

«Wood is a creation of nature which brings into every environment the secret soul of trees and forests, all elements harmoniously preserved in the parquet floor. Wood contributes to the healthiness of the environment in which we live; its fibers absorb the humidity which is then released gradually. Wood is also long lasting, versatile, practical, it is never cold, it is pleasant to touch and, another fundamental aspect is that it is a renewable matter. Also, we only use natural glues and we propose a treatment with natural oil which makes the product 100 percent natural. All Admonter products are Ibr certified which guarantees the absence of health risks and which is issued by the Rosenheim independent institute for construction biology».

Let's have a look at the production itself, this time we are accompanied by the managing director, **Ewald Fuchs**.

Which machines do you use to produce the Admont?

«We have two Gabbiani profiling machines that we've had since 1996 and recently we had another Celaschi installed. These are all lines which have worked well for years and for this reason we decided to continue to use these brand».



Ewald Fuchs
Managing Director

**engineered
flooring**
scmgroup leader in
production process and technology



What kind of profiles do you produce?

«Both the male and female and the click and we can make both with the same machine and a quick shift of the tool: an innovative solution proposed by Scm Group Engineering with Celaschi brand. The Celaschi profiling machine doesn't need tool changes, but it is able to vary the setup, by changing the position of the tools, through auxiliary motors and a particular system which we have patented».

And what advantages does this entail?

«Every 10 minutes we are able to change profiles, while before it took us 4 to 5 hours. In any case we try to change production only when this is necessary, but when we have urgent consignments we can react to the client's needs without wasting time».

How much do you produce in one shift?

«In a 7 hour shift we produce around 8 thousand pieces with the new Celaschi machine which has a feed speed of 60 meters per minute, but in Stia we work double shifts, so we produce about 6 thousand square meters a day, depending on the size of the elements. However, we are equipping ourselves to increase these figures within the next year».

scmgroup engineering: a line of profiling machines with 10 minute set up

«When we began to examine the technical specifications required by Stia» says Scm Group Engineering manager for the parquet department, «we realized that this enterprise was looking to the future and was asking us to provide a highly flexible line, with elevated production capacity, an elevated degree of precision and the size of the raw staves only slightly larger than the finished ones so as to save wood. All aspects which are not simple to integrate in one product».

So how did you proceed?

«In the first place we tackled the problem of a correct input of the staves in the longitudinal profiling machine by placing a Celaschi glue milling machine which eliminates the lateral dripping of the glue which have emerged during the previous pressing phase and which, if not removed could prevent the pieces from entering the machine correctly. Then, we concentrated on the most complex aspect, that is, flexibility and productivity. Our research led to the Celaschi patent which enables the Stia line to change type of production in just a few minutes, whereas before, it would take ours to reset».

Which other aspects have you worked on?

«The most difficult task was that to respect the tolerance, considering that the margins of error which this sector allows are in the order of hundredths of millimeters. Consequently, we carefully studied the positioning of the various motors, inspected with two cameras the profile and dimensions of the stave coming out of the longitudinal profiling machine and automatically discarded the rejects».

How many people work on the line?

«Only one operator, since the entire line is managed by a supervisor who follows every phase of the production of every piece, controlling all the machines involved in the manufacture be it in width, length and depth».

from xylon
www.xylon.it

staircase

scmgroup leader in
production process and technology

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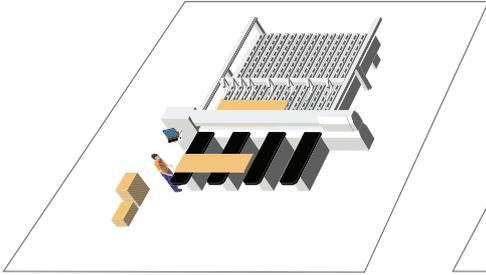
See the interactive section on
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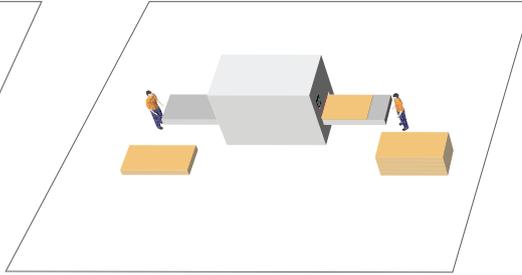


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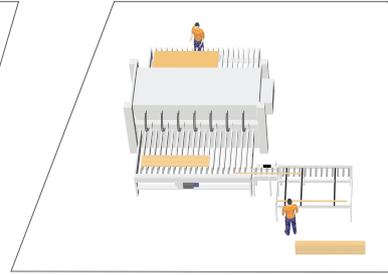
5 sizing



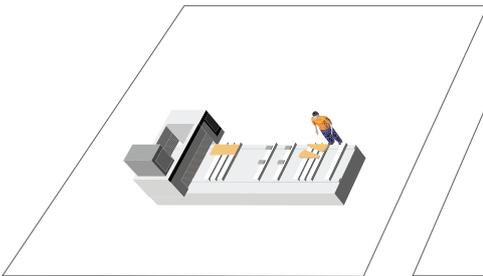
4 calibrating



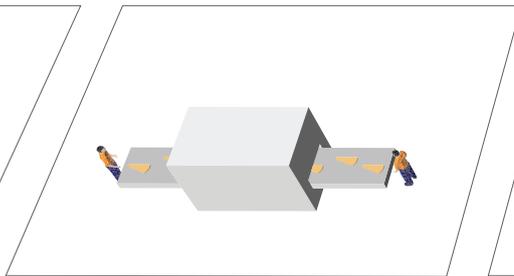
3 glueing and pressing



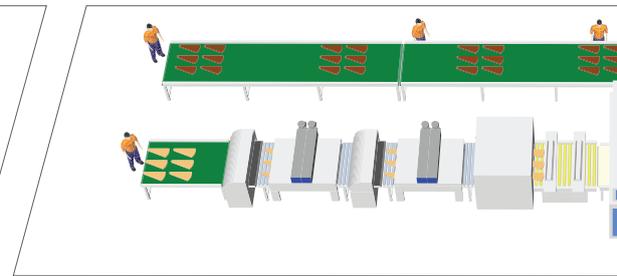
6 routing



7 sanding



8 painting



step

production process

selected partners

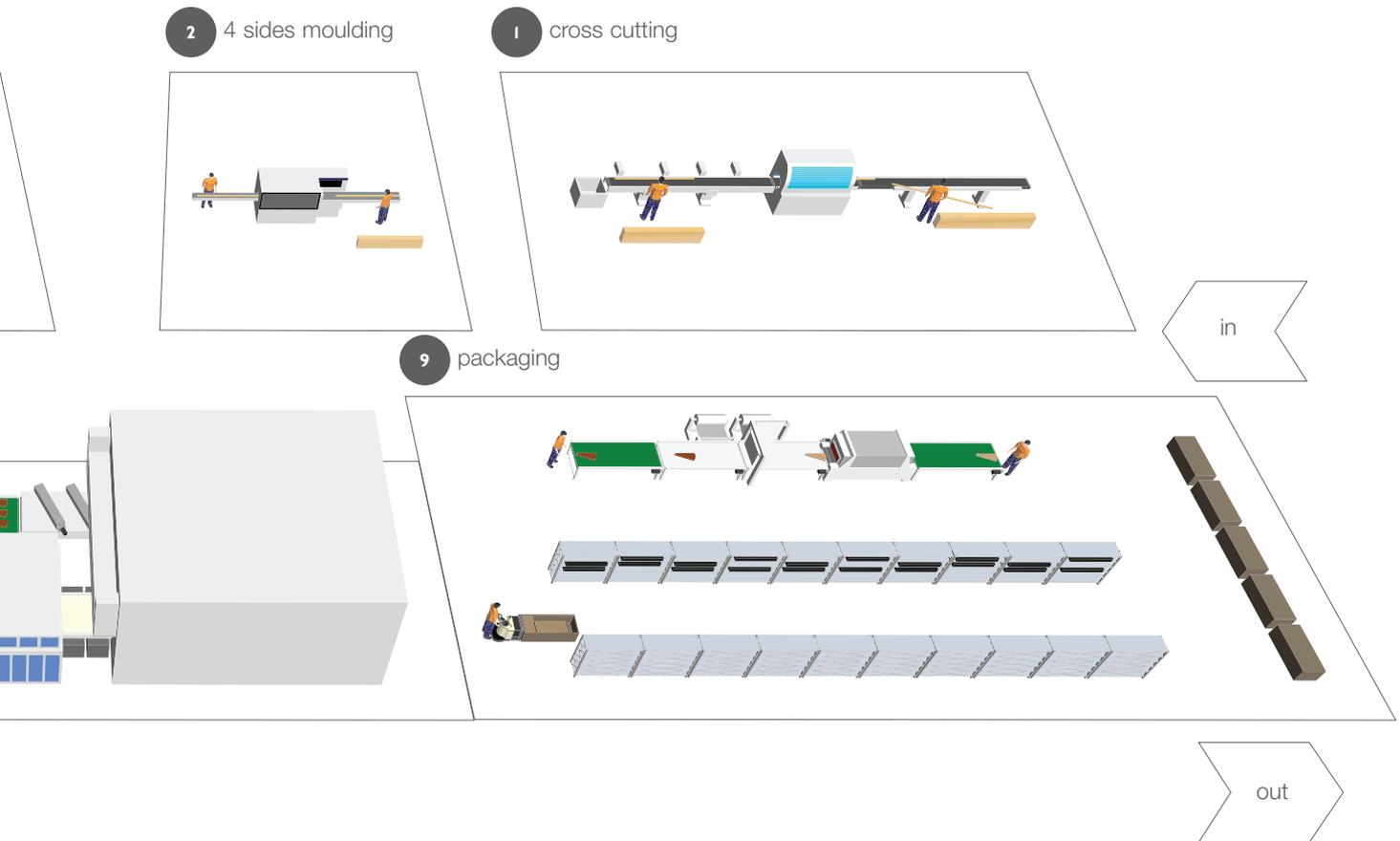
- 1 cross cutting
- 2 **scm** moulding
- 3 **sergiani** glueing and pressing
- 4 **dmc** calibrating
- 5 **gabbiani** sizing
- 6 **scm** routing
- 7 **dmc** sanding
- 8 **superfici** painting
- 9 **cpc** packaging

handrail

production process

selected partners

- 1 cross cutting
- 2 **scm** 4 sides moulding
- 3 **sergiani** glueing and pressing
- 4 **dmc** calibrating
- 6 **scm** 5 axis routing
- 7 **dmc** sanding
- 8 **superfici** painting
- 9 **cpc** packaging



flexible and fast machinery with reduced and guaranteed set up times

beautiful, practical and strong staircases created with scm group advanced technology

The production of wooden staircases involves the construction of two distinct elements: step and handrail, each with its own production flow.

The sector is characterised by medium sized businesses, highly influenced by trends and design, with well-recognised brands in their respective markets.

Production plant featuring a solution for manufacturing staircases wooden parts, from raw laths, and for medium-high productivity

The main technologically advanced solutions for business furniture production process:

- Cnc working centre for routing-boring **SCM Accord FX**
- Automatic pressing line **Sergiani GSLA**

Production integrated system main features:

- System capacity: **240 steps/shift**
- Staff required: **20 operators**
- Surface area required: **3000 m**

staircase
scmgroup leader in
production process and technology

T

technology

routing-boring

find out more on Accord FX range at

www.scmgroup.com

accord fx

innovation across the board

complete routing-boring solutions in a comprehensive range of workcentres.

Accord 20 FX completes the range of SCM's mobile gantry workcentres, designed mainly for the production of door and window frames, stairs and solid wood parts. The Accord fx range with the three versions 20, 30 and 40 now available, is able to offer a complete series of solutions to meet all the requirements of an extremely advanced market, that demands great attention, precision and reliability from every detail. The hallmark of the range is easy to use state of the art technology available to everyone, from large companies to small woodworking workshops that need to produce quality products.

utmost precision across the whole working area

The **mobile gantry structure**, designed and manufactured entirely by SCM, ensures **maximum precision across the whole working area at all times, even with large dimensions**, both with bar tables and with multi-purpose tables.

38

maximum table set up speed

The **worktable bars** is available with various management levels, all easy to use. In the "Matic" version the **setup only requires a few seconds**, each unit is fitted with its own motor, which allows for the simultaneous movement of all the parts.

The exclusive and proven aluminium multi-purpose worktable can be used to hold down parts of any shape and machine panels with nesting technology.

reduction of unproductive times

The **tools holders**, positioned on the machining heads allow for tool changes in masked time. Positioned on the mobile gantry they can house up to 48 large sized tools which can be changed in **just 5 seconds** with the "Mach 5" shuttle.

machining head

The Accord fx range features the widest choice of electrospindles on the market: from 3 to 5 interpolating axes, high torque or high speed, with HSK63F or HSK63E tapers, all designed and manufactured by **Scm Group**.

"brc" multi-purpose unit

The unique BRC unit cuts, routs and drills both vertically and horizontally, along with the main electrospindle, for all the accessory machining on door and window frames. BRC ensures faster machining speeds, reduced number of tool changes and greater availability of stations in the magazines.

"pro speed" and "pro space" safety systems

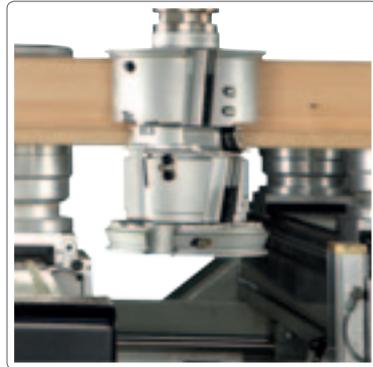
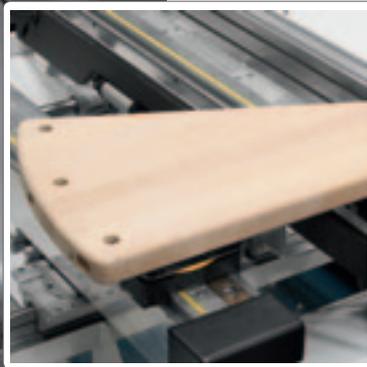
The new "Pro Speed" and "Pro Space" safety systems ensure that all the machine's potential can be exploited to the maximum, with no obstacles to the operator in approaching the worktable in complete safety and maximum dimension in pendulum machining.

The "Pro Space" version reduces the space required to start the machine to the minimum.

new!



staircase
scmgroup leader in
production process and technology





case history

machining centers for staircases

www.fontanot.it

fontanot

The beauty, functionality and strength of a staircase... All in a brand that makes a difference.

160 employees, a turnover of over 36 million Euros with exports amounting to almost 70 percent, especially in France, Germany, Scandinavia, and in recent years, Eastern Europe and North America, taking advantage of new and exciting opportunities through multiple sales channels: Retail, Distributors, Organised Groups and Large Organised Distribution networks.

Fontanot has a long story to tell. Its roots date back to 1947, when the Albini brothers established their workshop in Rimini for the production of pole ladders and woodworking.

In the 70s, with the entry of the new partner-protagonist Enzo Fontanot and the birth of the new brand, the company began to gear towards the design and construction of "open plan staircases", being visible to the eye, thus mapping a new construction concept for staircases as an integral part of the furniture.

The 80s saw the company shift from the hand-crafted to an industrial scale. This was also the era of staircase standardization, thanks to the development of a modular system that allows the combination of many standard elements. From the early '90s, Fontanot grew to become a market leader and strengthened its presence in overseas markets. It conceived the idea of creating staircases in an easy and quick to assemble kit that were perfectly proportioned and well sized with excellent value for money.

In **2009 the company recreated itself in the new Fontanot brand**: a brand that expresses a system of human and industrial values and establishes a relationship of continuity between past and future with the new generations.

«It is not easy to give an idea of how much we produce today». Large quantities are common in Albini & Fontanot, but high quality tailor-made production has not been abandoned. Today's market is based on combining numbers and quality. «The number of customers that we can reach with the production of "kit" staircases is much broader, but the desire for beauty and quality remains the same» says Production Manager Adriano Bugli.

The Albini and Fontanot technology is "**made in Scm Group**".

«Technology has always been of the utmost importance throughout our history» says the production manager. «We have always been very sensitive to automation issues and maximum computerisation of processes. We have heavily invested in tools that will allow us to get closer to the "automatic plant", not only for working wood, a part of our activity in which we work in close collaboration with the SCM Group, but also for the design and the transmission of information... We are, we want and we must be a 360 degree "high tech" company.

We have an historic partnership with SCM, a solid relationship that has very often led us to work closely to define machinery and solutions. We have also tested prototypes with them: the first two-head routers passed through our company as well as the first six-head router... an intense and successful relationship, because we are talking about a large group, one that manages to meet deadlines, respond to market-dictated solutions and is in line with innovation deriving from management solutions. All this is crucial to our vision».

Cutting-edge technologies, with **machining centres** at the helm.

«We have five SCM Group machining centres at Albini and Fontanot, including a rather large Ergon that has given us excellent results. The numerical control was a key development for the type of work and production philosophy that we decided to pursue. But we must not forget that we are talking about software, machines



and tools that are on the market and that anyone can buy. The difference lies with how these machines are used, the synergy that can be created with all the tools and the vision that the company is able to express using them and giving them a specific purpose».

«We really appreciate the industrial design that allowed the Scm Group to conceive their machines in a different way, creating families of products based on more standardised platforms on which customers can build the solution they need, forming aggregates with greater freedom. We see it as the right answer, the result of an intelligent vision of how the world of woodworking is changing. For us staircase is a furnishing accessory, a perception of the quality and style of an environment. These are strong values that play an important part in every stage of our work... even when we place a piece of beech wood on one of our SCM Group work stations!».



sustainable mahogany industries ltd.

routech ergon nt

Sustainability and high technology

A policy for the sustainable exploitation of mahogany wood and local forests requires innovative technology, specifically designed for special machining operations. Even better if these technologies are developed by a brand certifying their low environmental impact and, in the meantime, important positive effects in the social and economic domains. To summarize, this is the final result of the partnership between **Smil** (Sustainable Mahogany Industries Limited), a company of the Fiji Islands, and **Scm Group**, that was asked to deliver a **Routech Ergon NT**, a working center that will produce mahogany components coming from legal and sustainable mahogany plantations located in a certified area of the Fiji Islands. This experience is supported by the local government, that has created the "**FijiPure Mahogany**" certification brand, which will identify - in the international market - all the products and components produced with mahogany wood grown and processed locally according to sustainable and low environmental impact methods. This brand, strongly supported by the Prime Minister of the Fiji Islands, **Josaia Voreqe Bainimarama**, and by his government, ensures that local mahogany products comply with local regulations and that they do not breach the existing law in destination countries which, through their regulations, ban all the products made of illegal wood. The companies that will join the project and mark their products with this brand will be able to sell parts and components having the awareness of being fully in line with "Lacey Act" of the United States of America and with all other similar regulations in Europe and around the world. The choice made by the government of the Fiji Islands represents, in fact, a reference on a global scale, not only for economic and manufacturing reasons, but mainly and above all for the benefits provided at social level: sustainable management of resources and local working opportunities with technical skills. It is worth underlying the female predominance among workers, without gender discrimination, and the constant training schemes for employees, who get even better wages as compared to current salaries in the Fiji area. Thanks to a consolidated partnership started in 1996, **Scm Group North America - Industrial Products** has been cooperating closely with the President of Smil, **John Wagner**, in order to define a NC machine suitable to process such an excellent wood type and for specific productions, bringing state-of-the-art technology to one of the biggest mahogany processing facilities worldwide.

from xylon

www.xylon.it





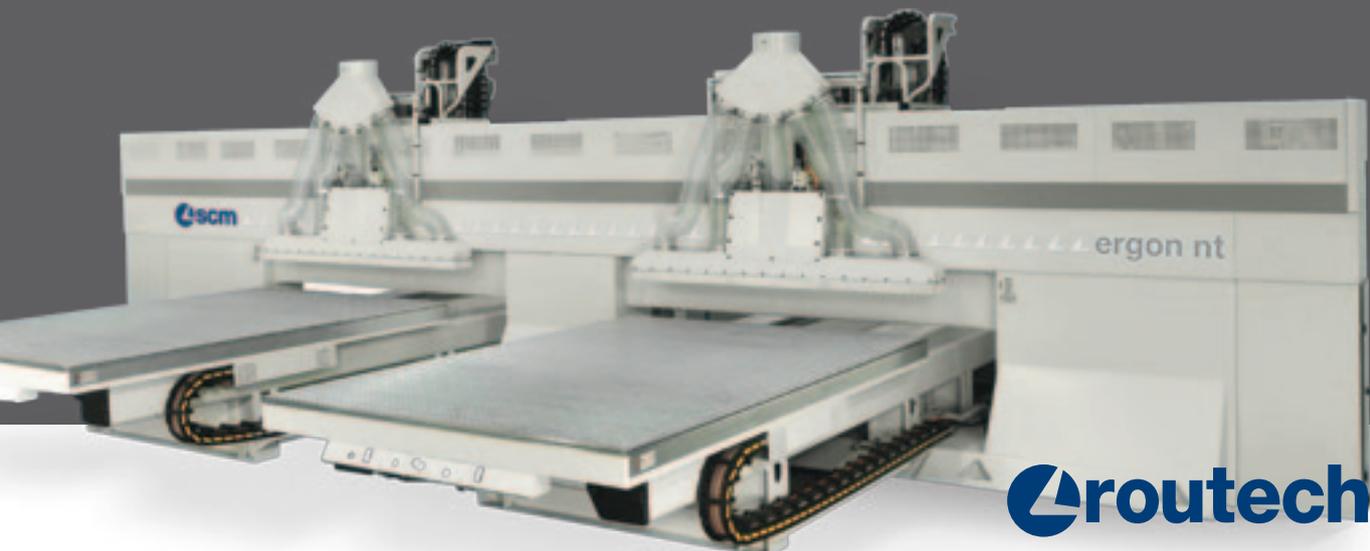
Gibson, an international leading name in the production of guitars, uses prized pure mahogany from the Fiji Islands that has been machined by SMIL with the aid of Routech technology. www.gibson.com

ergon nt (r400)

ERGON NT (R400) is the result of Routech's experience in modular and flexible solutions for the wood working sector, with a vast range of options that include multiple heads with independent axes. Ergon NT is Routech's CNC workcentre with a fixed gantry and two mobile multi-purpose tables, which can provide a series of modular solutions based on the client's requirements. The machine can be configured to achieve maximum results in terms of productivity and product quality. Six parallel heads each fitted with independent Z-axis and on-board tool changer, can all operate at the same time to machine 6 workpieces on one table or, depending on the requirements, they can operate alternatively and perform the tool change in masked time. The large work tables with independent movement to machine in pendulum have been selected to exploit all the machine's potential. Each table is 3080 mm wide and 5040 mm long and is divided in three vacuum zones, to facilitate holding down the individual workpieces.

Ergon NT's strong points are ease of operation and total safety: separate loading area and work area, the routing units (8.5 kW – 24,000 RPM) are located at the opposite side to the side that the operator can access.

The "Ergon NT" workcentre for the Smil with fixed gantry and mobile tables can provide high productivity levels (equal to 1,100 workpieces per hour) with six machining heads and "twin" 10 by 20 foot tables.



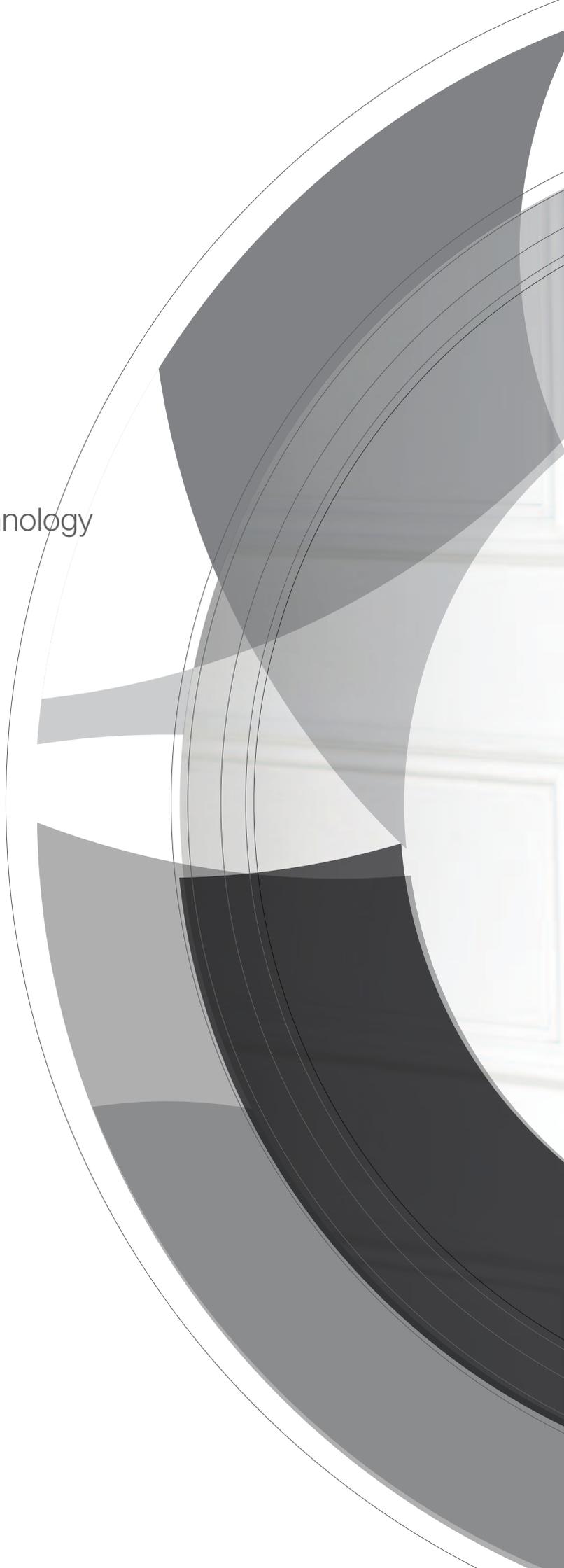
flush door

scmgroup leader in
production process and technology

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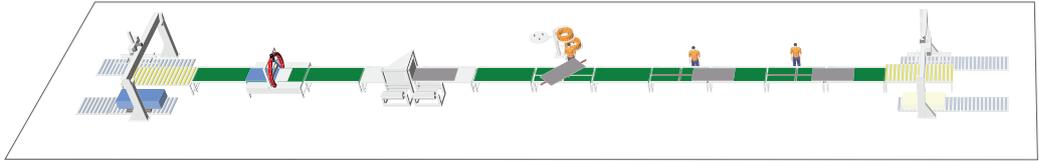
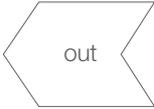


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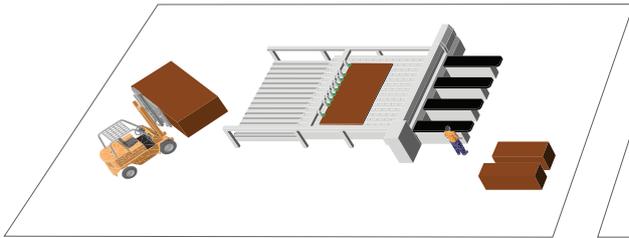




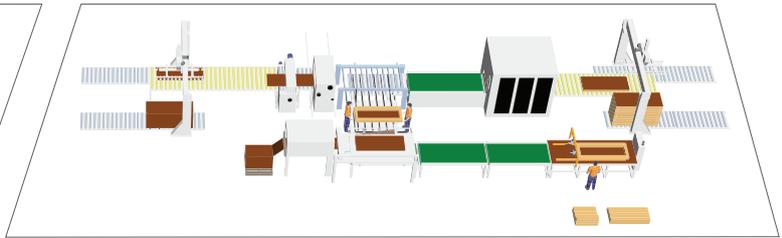
II assembly and packaging



2 panel sizing

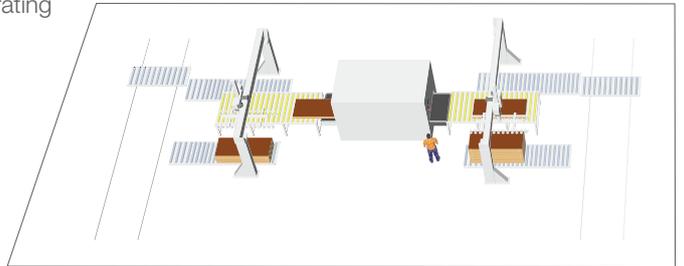
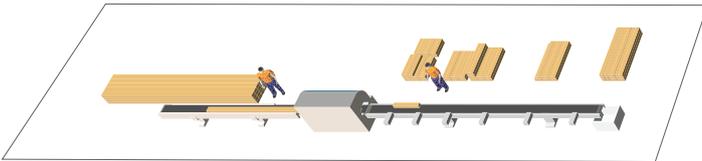


3-5 composition and pressing - veneering



4 calibrating

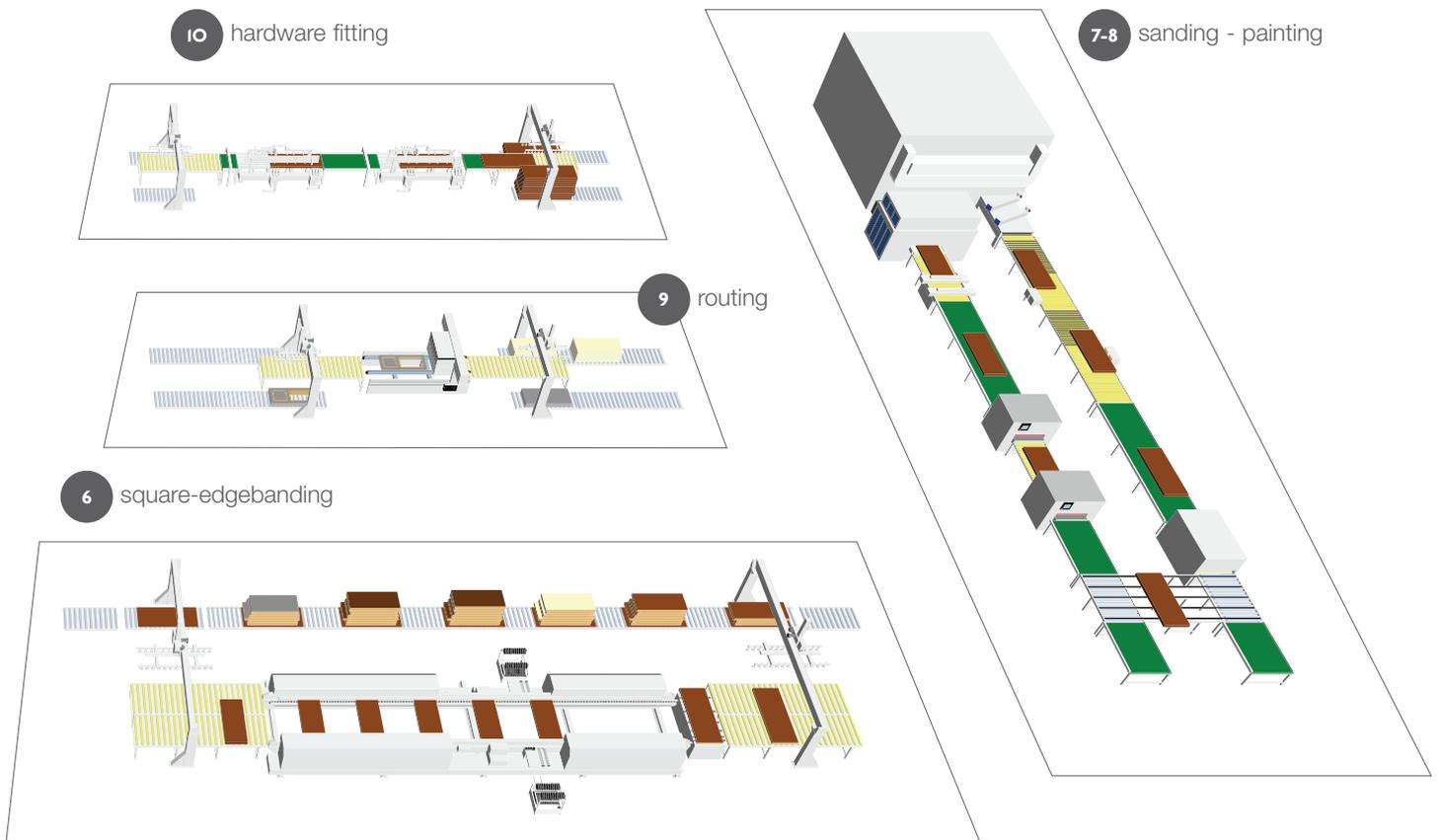
I cross cutting



flush door

production process

- I** selected partners
cross cutting
- 2** **gabbiani**
panel sizing
- 3** **sergiani** - **mahros**
composition and pressing
- 4** **dmc**
calibrating
- 5** **sergiani** - **mahros**
veneering
- 6** **stefani** - **mahros**
square-edgebanding
- 7** **dmc**
sanding
- 8** **superfici**
painting
- 9** **routech** - **mahros**
routing
- 10** **routech** - **mahros**
hardware fitting
- II** **cpc**
assembly and packaging



100 doors an hour with flexible production

The production process for flush doors involves a high degree of flexibility, linked to the many possibilities for customisation for each customer.

The production plant shown is made up of several cells for making flush doors, a flexible squaring - edge banding cell, a painting line, two machining cells and an assembly and packaging line

Main technological solutions for making flush doors:

- **Sergiani MVC automatic single-cavity press**
- flexible squaring - edge banding cell with **Stefani Evolution SB**
- **Routech technology** for machining and customising doors
- **DMC System** sanding machine with new "saw blade" unit

Plant features:

- Production capacity: **100 doors/hour in flexible mode**
- Personnel needed: **15 operators**
- Area: **5,500 m²**

flush door
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 production process and technology

T

technology

calibrating-sanding and finishing
find out more on system range at
www.scmgroup.com

system

dmc invents the “sanding centre” flexible solutions for any finish

Stimulating demand with perfect, captivating finishes, whether they are modern or traditional; meeting any requirement, so as to increase your competitive edge. In other words, deciding to challenge a still “difficult” market by giving customers what they want, what their tastes require, so that they get a floor, or a piece of furniture that they feel is really “theirs”. This is an even more common theme when talking about wood, a material which – depending how it is machined, sanded, finished – can produce a range of different sensations: from a rustic look to ultra-modern, from farmhouse-style to sophisticated.

Guaranteeing that the thousand possible finishes can be produced using a single technology, a single machine, is the challenge that **Dmc** has overcome with the new range of “**System**” sanding machines. A “technological container” which can be fitted with the machining heads needed to obtain any type of finish, even the most complex. Simply imagine what you need to obtain and set up the required combination of machining heads to get that result. And that’s not all: the new “System” machines can hold up **to ten different machining heads**, easily replaceable, for doing everything needed now and in the future!

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The machining heads can be selected from a vast range of continuously updated technical solutions, so as to always guarantee craftsman’s quality with big industry productivity, regardless of the finish demanded by the market. Simply make a few adjustments, combine the action of the machining heads with absolute freedom and, in very little time, you can “design” a new finishing cycle, with absolutely low costs. And always with a constant and surprising finish quality.

An idea that many users around the world have already rewarded, solving all problems with a single solution. This is demonstrated by Dmc’s flagship “**System T10**”, a true “finishing centre” able to produce many surface effects, including transversal and longitudinal waves, light and heavy duty structuring, pore opening, and even perfect reproduction of saw cutting marks, recently much in demand both for wooden floors and for the doors of furniture and kitchen cabinets..

Another advantage: you can visit the **Dmc technological lab** in Thiene not just to see the “System” in operation, but also to study with the group’s technicians the best, most effective and economical way to get a special finish.



flush door
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production process and technology





mario rioli

Fifteen thousand doors per month with italian design

At Donskoj three years ago, an industrial project was launched, where the Italian company Mario Rioli has played a very important role. An important partnership, which has led to the development of the biggest door production plant we have ever seen.

A consolidated and real partnership where all members bring their experiences and learn from each other. In 2008 Mario Rioli, a company based in Carpi, near Modena - a historical brand among "made in Italy" door manufacturers - inaugurated its production plant in Donskoj, a town located 230 kilometers from Moscow. A peculiar story, almost a casual meeting between Corrado Rioli and the Russian entrepreneur Artur Popelnuhkov. The friendship between them soon turned into a business relationship, which led them to decide to ride the wave of a market where design products, developed with Italian technologies, immediately achieve significant growth and success. How? Easy: creating a structure characterized by strong production specialization (wooden doors) and by the most advanced technologies that manufacturers can offer. Because Russia definitely appreciates high quality products, with good design and high-quality materials. In other words, "fine Italian doors"!

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There is growing room in a country that is recording strong growth, getting away from the principles of socialist economy and becoming an ideal place to produce and sell... Thus, Mario Rioli was established, a huge plant located in an old kombinat gathering the best Italian technologies to produce everything that is needed: furniture doors, jambs, frames. The Rioli family experience was integrated with important financial assets and innovative technology. An ideal approach to solve problems connected to growing costs and a very long supply chain, two points that affected and still affect local manufacturers today. Mario Rioli currently employs 400 people in a facility of over 30,000 square meters. It produces around 15 thousand doors per month, 70 percent of which are veneered and targeted to a medium-high market segment, while the rest consists of thin laminated doors meeting the requirements of a lower market segment, but still with higher quality compared to standard lamination with melamine paper. Everything is carried out within the company, from the purchase and drying of Russian wood boards, to painting, up to packaging and shipment. An amazing organization, where Italian technology - Scm Group first of all - is a key element. 35 year-old manager **Vladimir Snovsky** is leading the company.

Mr. Snovsky, what was the Italian contribution to this factory?

«Since the beginning of our partnership, all door models within our production have been designed in Italy. But mind you: all the products in our catalog have been specifically created for the Russian market and are produced in our country. What we needed and what we looked for with this partnership was design, first of all, that's the most important contribution of our Italian partner in this adventure. Then, precious suggestions about the implementation of our production technologies were given as well. Today we address the market mainly with mid-range products and we have ten different collections: glazed doors, with or without reliefs, classical, modern...».

The factory was built in record time and required many efforts and a huge investment: did you have previous experience in wood industry or did you have to "learn" a new job from scratch?

«We did not have any experience in this industry. On the contrary: only very few of us processed wood. Five, six people maximum. Our first wood & technology teachers came from Scm Group. They explained us the basic steps».



To sum up, you started with European organization and Italian quality, and fitted them the peculiarities of the Russian market. What was the role of technology to assemble these three factors, so different from one another?

«When we launched our project, we did not know much, but we were convinced that, buying a good machine, a high quality plant from an Italian manufacturer, we could do nothing but a good product. And that's what happened, but we were too optimistic to think that technology and manufacturing were all that mattered».

Why did you choose the Scm Group, how did you meet?

«To tell the truth, one of the business partners of Mario Rioli had a specific "experience" in this industry, for he was also member of Aquaton. He reported the possibility to get in touch with Scm Group. The experience with Aquaton convinced us that it was an excellent Italian organization, renowned all over the world, which could bring this project to life and which could be able to provide supplies of this size with no problem and with a turnkey solution. I must say that we did not make a "black box" choice. There were meetings, proposals, offers, checks and comparisons with other important European players, but in the end the choice was Rimini and today we can say we are satisfied».

from Xylon www.xylon.it

Vladimir Snoksky

visiting the factory...

Visiting the production departments of Mario Rioli is a unique experience. Everything is unusually big and the opportunity to see a complete production cycle - from multiblade machines for the production of frame strips up to the most modern finishing line - is worth a trip to Moscow. A major challenge also at process level, which forced the engineers of Scm Group Engineering to consider dozens of factors because Mario Rioli produces lacquered hollowcore doors, veneered, laminated, solid wood doors, doors with smooth relief or shaped panels. Without considering that it also produces all semifinished products and components that are generally manufactured by subcontractors, including stiles, covers, jambs, glass stops, frames... Strips produced by the multi-blade machine are optimized and cut to the dimensions suitable for the construction of frames, on which Mdf panels of different thicknesses are then glued. Panels are machined by an angular panel saw Gabbiani "Axioma 125". The coupling operation between frames and Mdf panels is carried out in a line built around a "Las 230" Sergiani press: "Grafmatic" (automatic frame stapler) assembles strips forming the frame. The gluing machine supplies the Mdf elements while a continuous feeder provides honeycomb panels. Everything is assembled and sent into the ten platens of the daylight press, then unloaded and sent for calibrating and subsequent veneer or laminate gluing operations, according to the product type (veneers are produced and selected in a specific department). Then doors are taken to a Stefani "Evolution" squaring-edgebanding line, where doors are edged on the long side and then on the upper side.

kitchen furniture

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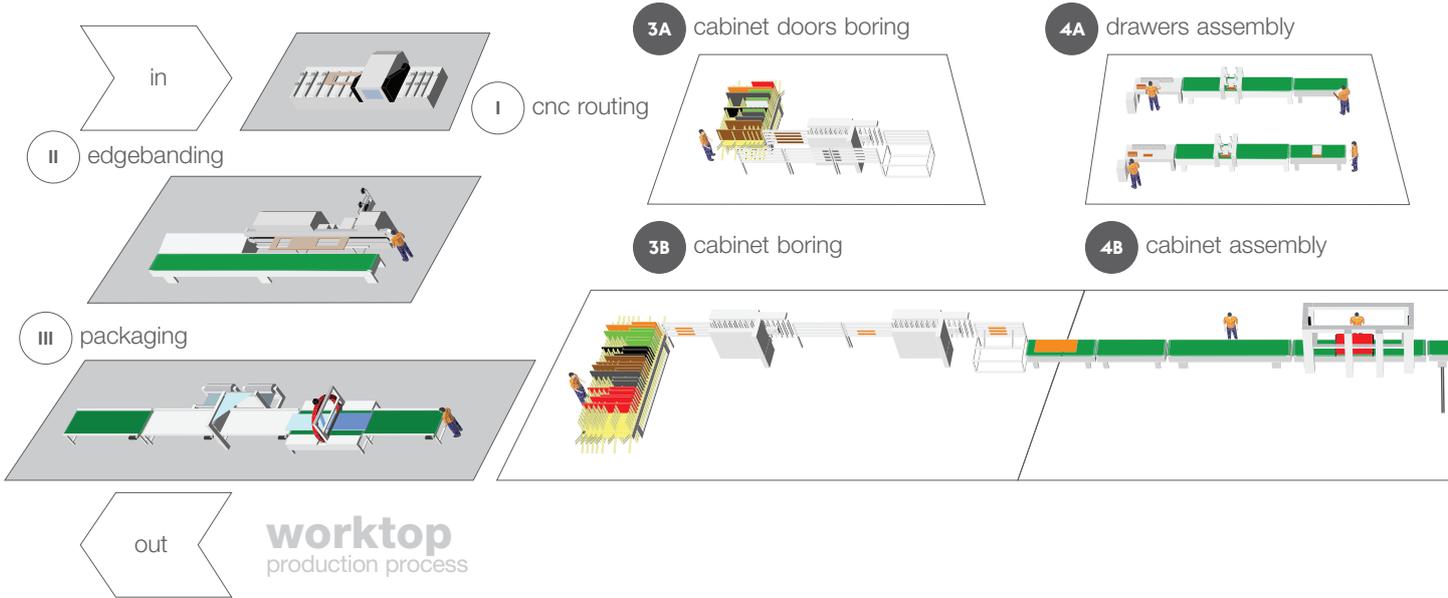
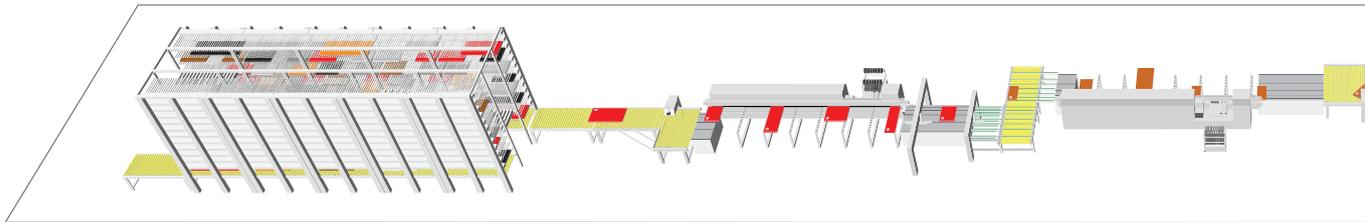


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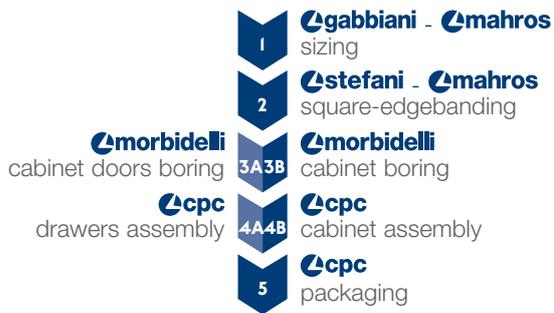


2 square-edgebanding



cabinet

production process

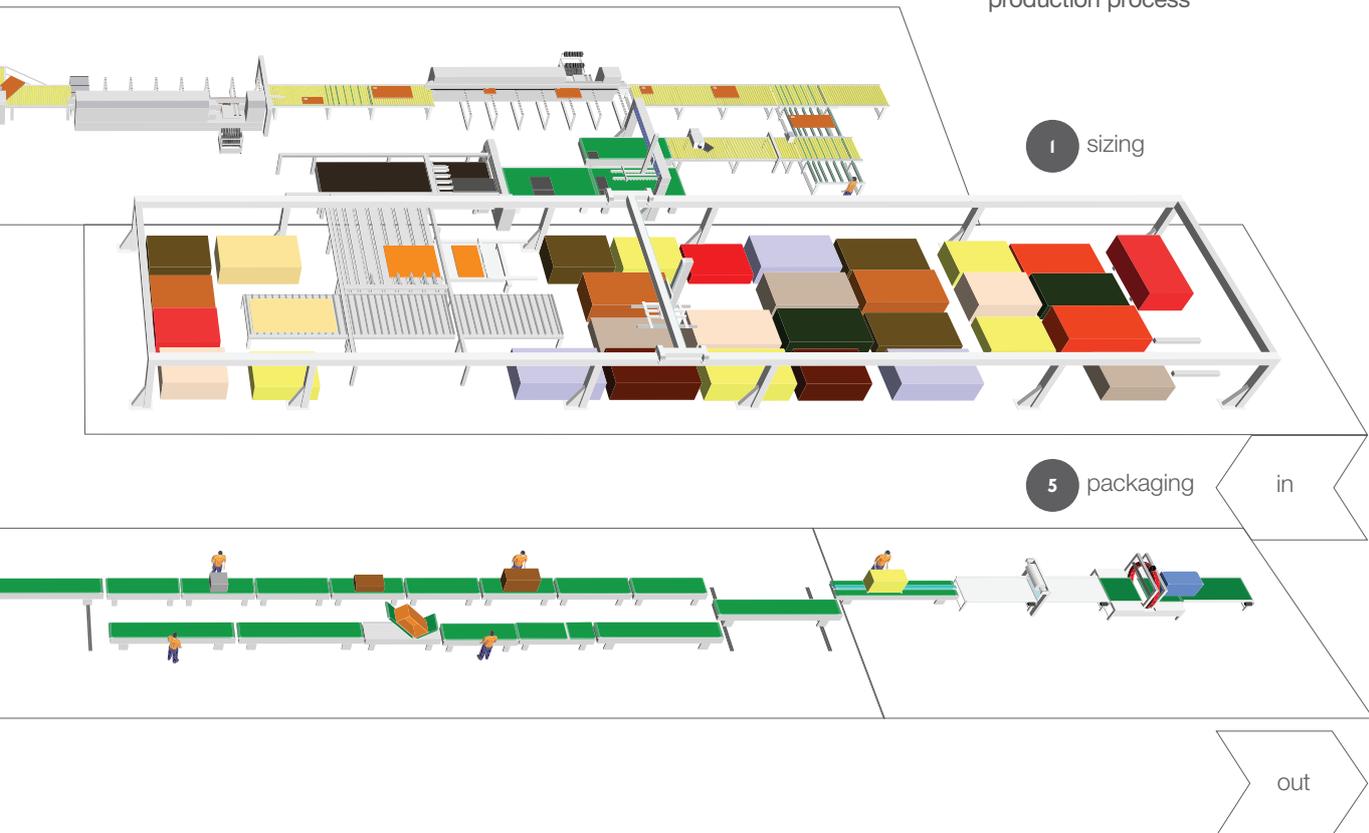


worktop

production process



cabinet production process



55

30 kitchens a day: the best in terms of productivity

Kitchen production involves making various types of components, such as for kitchen base and wall unit boxes, cupboard doors and tops. SCM Group designs and makes all types of machines and plants needed for this process. The kitchen production process is highly customised as regards the design, materials used and style requested by the customer.

The production plant shown is an integrated and flexible solution for panel sizing and edge banding managed by a single supervisor, equipped with other lines and cells for boring, assembly and packaging of box components.

Three separate cells are dedicated to machining and packaging tops.

Main technological solutions for making panels for boxes:

- Stefani **Panel Suite** gluing unit
- The new Morbidelli **Author M200** NC machining centre
- The Superfici **Laccabond** edge coating application unit

Integrated plant features:

- Production capacity: approx. 3,000 pieces/shift
- Personnel needed: 5 operators
- Area: 2,200 m²

**kitchen
furniture**
scmgroup leader in
production process and technology

panel suite

the only machine that integrates
3 gluing technologies in one

The revolutionary idea behind the **Panel Suite** is to provide different edge gluing technologies in a single application unit.

Using a modular approach, each **Stefani** customer can set up various edge banding technologies in a single machine, for flexibly achieving a high degree of diversification for cost-effective production:

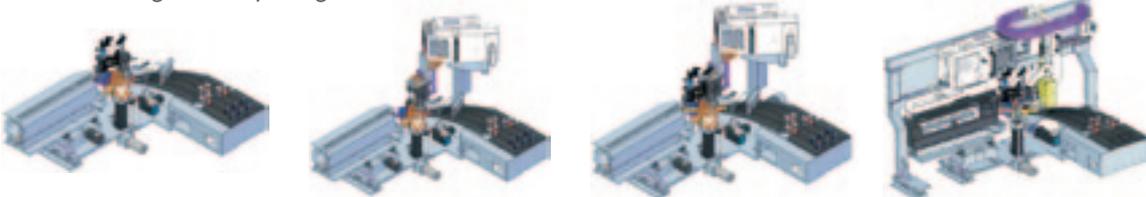
- EVA hot-melt glue technology applied with the glue pot
- SLIM LINE technology with polyurethane glue applied on the edge through a slot with a **better than standard quality / price ratio**
- LASER LINE technology with edging melting by a **Laser, without the use of glue.**

The three technologies can be activated individually, but they are simultaneously available: **the change in production from one technology to another is very fast** (immediate switch between EVA and SLIM LINE or between SLIM LINE and LASER LINE, 4 minutes for the switch between EVA and LASER LINE).

The cost can also be spread over time by setting up the machine for the various technical modules and installing them at a later stage.

Switching between the various types of gluing is practical and fast, tool-free and with no need to disassemble parts. In terms of production this means that one, or multiple changes, in the type of production do not affect daily productivity in any way.

Servo-assisted cutting of the edge is available on all three technologies. The Panel Suite gluing unit can be fitted with **magazines for up to 24 reels** and can apply edging on panels with a feed speed of up to 60 m/min. using the Eva and Slim Line techniques. **Melt on demand technology** is now available on the Slim Line, ensuring that only the glue needed is melted, so that there is no waste of raw materials.



Catas certifies the high quality of the stefani slim line process

CATAS is the leading independent Italian institute for research and tests in the wood & furniture sector. After many tests commissioned by Stefani, it certifies the high technical and quality level of components for furniture produced with the SLIM LINE edge banding process. SLIM LINE has achieved top results in all of the most important tests:

UNI 9240:1987 TEST ADHESION/TEAR

DIN 68930 TEST MOISTURE/HEAT CLIMATE CYCLE: a 129 hour test with 92% humidity and 40° temperature in alternate cycles.

UNI 9242:1987 TEST HEAT RESISTANCE OF EDGES: a test consisting of panel heating up to 90°. Therefore, in addition to proven joining quality higher than the standard and an excellent quality to price ratio, the SLIM LINE process also features indisputable technical performance.

author m200

we designed the future, while respecting today's requirements, saving space and on costs, but always with high quality standards.

The world economic scenario imposes strict rules for facing the crisis. Today there is maximum attention on modularity, flexibility, productivity, technology, quality, and above all on a fast return on investments. **Morbidelli** considered all of this when designing the new **Author M200 NC** machining centre. A sturdy structure, the new bar worktable, the 5-axis machining head and the innovative safety systems mean that the Author M200 is a **compact machine packed with technology**, able to **guarantee the same high quality standards as a large machining centre**.

Author M200, the latest in the **Author Series M** range from **Morbidelli**, guarantees:

- **Maximum safety** thanks to these devices:
 - "**PRO-SPACE**"; this system allows total freedom of movement in front of the worktable, above all for pendulum machining. The machine positioning speed reaches 25 m/min.
 - "**PRO-SPEED**"; this system allows the machine to be used at the top speed, since it can recognise, by means of a system of photocells, operator presence in the working area, guaranteeing operator safety in any operating conditions.
- **High performance and energy saving** with **Sav€nergy**, the integrated system for energy savings and protection of the working environment.

- **Top performance** with these units:

- **Prisma KT**, machining head with 5-interpolating axes, with an 11 kW "High Torque" electro-spindle anchored to the mobile girder to guarantee maximum rigidity during routing and an excellent finish quality even with heavy duty stock removal. Featuring the special geometry with axes of rotation 50° from each other, the Prisma unit offers many advantages compared with conventional 5-axis machining heads, including:
 - full use of the working areas both with 5 axes and with the vertical spindle
 - spindle dimensions outside the machining area
 - a very slim line shape during horizontal machining.

The Author M200 also has:

- **F26 L**, boring unit with the highest spindle capacity in its category, having 18 independent vertical spindles, 4+4 horizontal and a fixed blade unit.
- **Tool magazine** with a total of 26 locations for maximum flexibility of use. These consist of a 16-location tool-room and a 10-location rack on the side of the machine.

Author M200 is a highly flexible machining centre, compact and with limited costs, perfect for any machining and production requirements: from **office furniture to bespoke furniture**.

new!

laccabord

a new patent for laccabord

the edge coating application unit which guarantees fast processing times and careful use of paints and lacquers

Painting edges has always been a very delicate step of the finishing process.

Even now, edges are often prepared without using a specific machine, but by spraying, mostly manually, panels arranged in a stack. The preparation cycle carried out in that way inevitably results in a series of problems: long processing cycles; a lot of paint or lacquer wasted; the need to form stacks which are homogeneous in terms of workpiece size, therefore involving the break up of order batches.

Laccabord is the **high-tech solution** which solves all of these problems:

- it allows **sequential painting of panels in different sizes without any settings**
- it allows **UV painting processes with short cycles, avoiding waste and with 100% solid paints without solvents.**

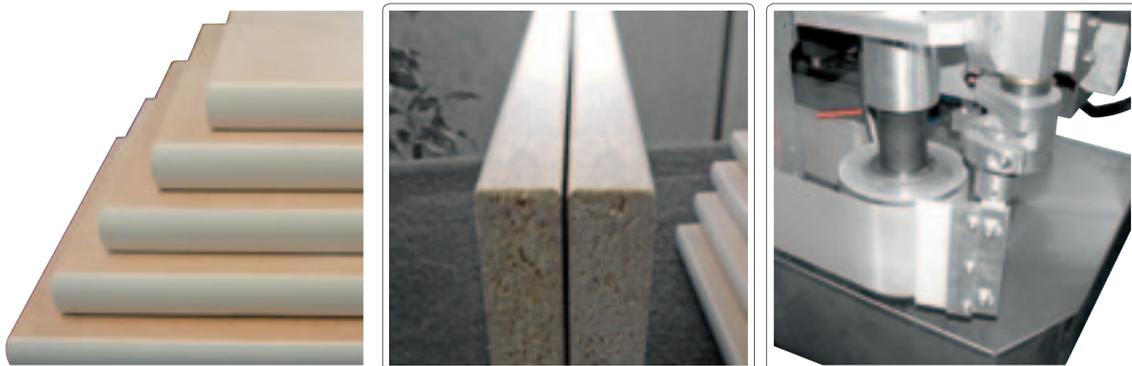
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The machine has the same base as an edge bander, but its set of units located one after another allows the required painting cycle. Application, UV drying and sanding units are available for performing any cycle needed:

- preparation (filling) of MDF edges for subsequent spray finishing;
- painting of veneered edges before panel surface painting on roller/fog coating lines.

The system's strong point is the **NST belt application unit**. The unit applies the UV paint or filler to shaped or straight edges using a belt which deforms following a counter-shape specially prepared for the type of edge to be painted. The amount of paint applied and its spreading are uniform over the entire edge even if it is shaped and you can choose application of the most diverse amounts in grams depending on the work to be done (from 30 to 150 g/m² per unit).

The switch between different types of edges is fast: simply change the counter-shape (plastic shaped doctor) using a quick change system. Shaping of the counter-shape for a new edge can be done directly in the machine using a special device.





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filling chipboard edges, an extra opportunity

Thanks to the new BST type belt unit (patented system) you can also easily fill any type of flat and shaped chipboard edge. The new unit allows application of large amounts of filler with each pass, optimising consumption and waste, and allowing the switch from one profile to another without special equipment. The edge obtained is sealed and smooth and is optimum even for the most critical coatings with thin or gloss sheets or if necessary for subsequent phases for the application of base coats and top coats.

nicioli

Good quality kitchens are popular in Brazil

Key word: automate. Thanks to Stefani and Morbidelli machines.

In Arapongas, Paraná State, we pay a visit to a furniture maker which specialises in kitchen furniture, actually, one of Brazil's foremost kitchen makers: **Nicioli. Irineu Borrasca** is the executive director and he accompanies us on our visit and explains the company to us.

At the entrance we find a painting of St Anthony of Padua, a kind of "certificate" of the origins of this company. He acts as its protector and his stylised image is the trademark.

To tell the truth, the first name of the company established in 1961 by Marcus Nicioli and his wife was "Industria del Pio Sant'Antonio" (Holy St Anthony's Industry). When it was established the company object was the production of prefabricated concrete sinks and washtubs. As the years went by, demand shifted and wooden furniture became popular, representing a new challenge to be handled with the help of a partner who was a world-level expert, Sebastiano Pagliari, who joined the company in 1982.

The demand was there, and the capacity, as well as the possibility of investing. They started from scratch with Pagliari, reaching this agreement with him: you help us get started then we'll help you set up your own business. No sooner said than done. Nicioli is now an established furniture maker and Pagliari has a furniture making business of his own.

«The first product - Borrasca tells us - had to be the piece of furniture that goes under the sink, in the kitchen. Then we started making cabinets and only more recently kitchens, which are now Nicioli's speciality. We have an extensive, well-structured catalogue, from the smallest, most compact low cost kitchens that only cover one wall, to the most complex "design-oriented", modular kitchens. Our programme is in no way inferior to European production. Two collections meet the requirements of very different customers. We recently added the production of bedroom wardrobes and furniture under the "QMovil" brand, a company in which I'm a partner with Sebastiano Pagliari and another two people».

Things have changed since the company was established. A lot. Today Nicioli has 260 employees, 55 in "QMovil", in a factory spread over a covered area of 26,000 m², with sales of more than € 32 million and an export share of around four per cent.

«Today good, high quality furniture is also popular in Brazil», says Borrasca. «The low price range is the main one, but that doesn't mean that people buying in that range will accept poor quality furniture or that there are no consumers looking for superior quality. With Nicioli we aim to satisfy both categories. It's no coincidence that we're talking about a company which certified the quality of its production process, its product, something that in our country is not done by many... Even for the budget segment, as I already said, we aim for the best possible quality. It isn't easy, there is strong competition. But we believe that this decision will see our efforts rewarded. We approach the end consumer through an extensive network of points of sale and stores, with which we work via a network of multi-firm agents. We have many very loyal customers, who know and appreciate our quality. To be clear: our kitchens cost on average 25 per cent more than a similar solution. This may cause us some problems, because at points of sale the focus is on sales... but anyone looking for "different", better solutions knows what to look for: Nicioli is synonymous with quality, with a product that is superior in many ways».

Mr Borrasca, let's talk technology?

«Technology is essential in order to provide the quality I have been talking about. The choice of highly automated machines which guarantee productivity and constant quality is unavoidable, because they give you a competitive edge and greater control over the final price of the product. We are investing a lot in production



machinery and systems, partly because it's difficult to find people who want to work in this sector: there aren't enough workers for all of the companies in this district! So, the key word is "automate". Choose faster, high performance machines, managed by two operators rather than the five or six required by the previous series. Our last investment is one example of this. It was made in a powerful "Evolution Ssb" squaring - edge banding line with Stefani workpiece turner and four top level Morbidelli boring units. High-tech with excellent performance, reliability and productivity. To be honest, we have been on this path for only a few years now. But I must admit that after taking the first steps we realised that it would give us that extra gear! When we realised how easy it was to manage the incredible number of codes that make up our production, we knew that we should have made the decision sooner...».

from Xylon
www.xylon.it

scm tecmatic SCM Group presence in Brazil, one of the major markets for Italian technology.

Marcos Muller is general manager of Scm Tecmatic. Tecmatic is a very well-known Brazilian producer of technologies for wood, acquired by SCM Group in 2011, after a lengthy and effective collaboration. Initially it provided support services, and then began making sanders, followed by panel saws and, in 2005, partly thanks to its collaboration with SCM Group, edge banders. In 2011 the Rimini-based group acquired 51 per cent of the already well-known company, boasting a turnover of around € 35 million thanks to its 370 workers, of which 70 were agents and as many again technicians constantly travelling all over Brazil.

«50 per cent of the machines that we sell – continues Mueller – are made by Tecmatic in Brazil, the rest coming from Italy. Perfect integration, excellent results, because we can supply anything from a basic machine to the most powerful and automated line. Brazil is a growing market for wood-working technologies. In 2012 we made 90 million Reals, that's 35 million euro. That doesn't mean that we don't face competition from domestic, Italian and German brands, but we certainly aren't worried, because we know what we have to offer and how to do it. We have installed a lot of machines and that's very important, because we can take potential customers to see what their colleagues are doing with our technologies. Part of the reason for our success is also the historic closeness between Italy and Brazil, the large number of immigrants from your country now living in our country».

There are some issues to be dealt with in the future: *«We're faced by a market which absorbs any type of technology, with a **growing emphasis on automation**, the possibility of reducing manpower while achieving improved production continuity with constant quality. Not forgetting **quality**, which is essential now even in Brazil.*

*Being part of Scm Group is a great opportunity. We have to **work together** to get the best results, to grow the group image in this huge market and enjoy even more success. Together».*



living room and bedroom furniture

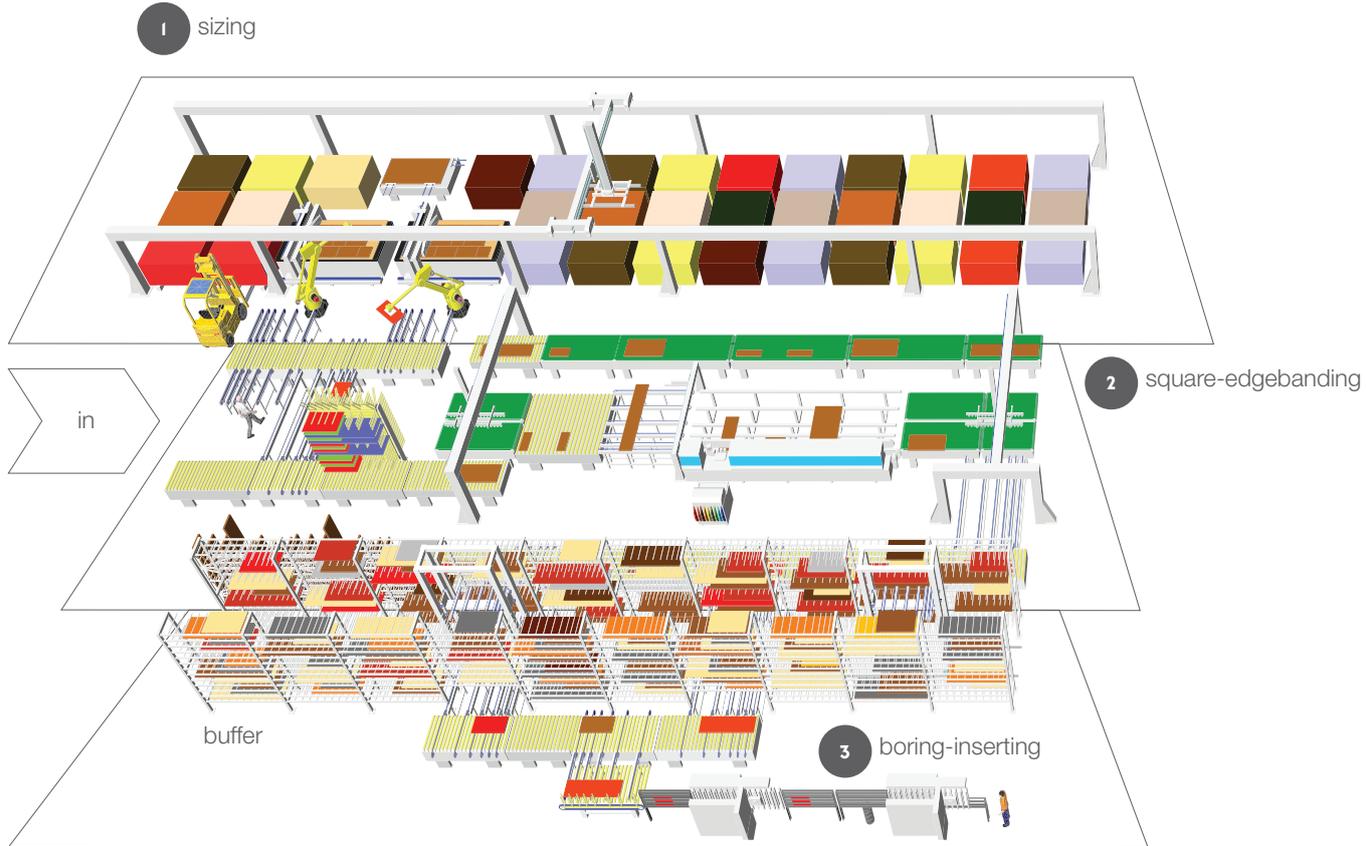
scmgroup leader in
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See the interactive section on
scmgroup.com





living room & bedroom furniture

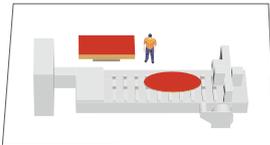
production process

- 1 **gabbiani - mahros**
sizing
- 2A 2B **morbidelli** edgebanding **stefani - mahros**
square-edgebanding
- 3 **morbidelli**
boring inserting
- 4 **superfici - dmc**
lacquering
- 5 **cpc**
assembly
- 6 **cpc**
packaging

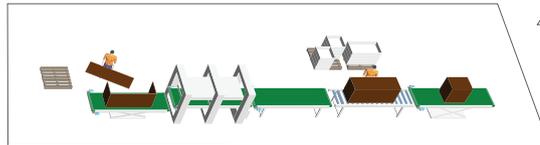
6 packaging



2B cnc edgebanding

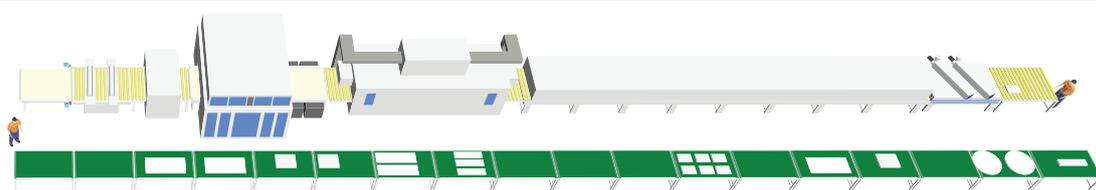


5 assembly



out

4 lacquering



1000 pieces sized per shift

65

Highly customised: design and new materials to meet customers' ambitious standards.

The living room and bedroom furniture production process covers the production of individual items such as wall systems, wardrobe units, beds, dressers, bedside tables (usually assembled) and other furnishing accessories.

The production process is highly customised as regards the design, materials used and style requested by the customer for individual furnishing situations.

This type of product increasingly uses sandwich or flush (hollow core) panels.

The children's bedroom also has a vast combination of shapes and colours requiring specific technologies and machining devices.

The production plant shown is an integrated and flexible solution for panel sizing, edge banding and boring managed by a single supervisor, equipped with other cells for painting, assembly and packaging.

Main technological solutions for making living room and bedroom furniture:

- **MorbidelliUniversal HP** multi-function machining centre for all panel machining
- **Stefani Easy Glue** and **PU Box** new glue pre-melting technologies
- **MorbidelliUniflex** machining centre, featuring high precision boring and high level production flexibility
- **SuperficiValtorta Bravorobot** for painting on panels with the most diverse shapes

Integrated solution features:

- Production capacity: approx. 1,000 pieces/shift
- Personnel needed: 4 operators
- Area 1,700 m²

living room & bedroom furniture

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easy glue pu box

easily managing any type of glue with
new pre-melting technologies

EASY GLUE and **PU BOX** are another example of how **STEFANI** research effectively pursues the goal of innovation to guarantee its customers extremely high level machining quality and user friendliness. **EASY GLUE** is the new compact device for pre-melting granulated glue which allows uninterrupted and automated production even with continuous changes in the type and/or colour of the glue, guaranteeing immediate advantages:

- automatic handsless change of the type or colour of the glue directly from the Touch Screen with automatic dosing of the grams of glue, even with the possibility of micro-adjustments.
- 8 minute stand by for change of colour or switch from EVA glue to PU glue
- 20 minute stand by for switch from PU glue to EVA glue with automatic glue pot cleaning and emptying cycle, without having to remove any part

66

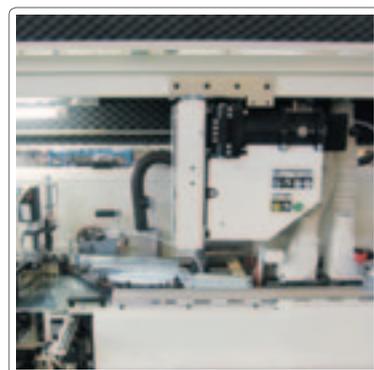
PU BOX is the new compact pre-melting unit for polyurethane glue in cartridges which eliminates the problem of glue contact with the air, always maintaining top quality glue.

The device makes the use of PU glue easier than ever: the cartridge of polyurethane glue is inserted with its protective wrapper still on in the hermetically sealed environment of the device and remains there until it has been partly or completely used up.

In this way, the customer enjoys many advantages:

- **excellent ergonomics** during cartridge loading and unloading;
- **easy, responsible glue handling** in the cartridge which, if not completely used up, can be removed, saved and re-used later;
- **top performance technologies** for production, such as **Melt on Demand**

Managing edge banding glue with state-of-the-art technologies means producing with top quality and in a cost-effective way. The new **STEFANI** gluing technologies further increase the added value given to machining thanks to a perfect and efficient use of the raw material.



uniflex

The boring cell with Mahros automated loading and unloading devices;

quality and precision for the demanding professional

The boring cell put on display at Ligna 2013 consists of the UNIFLEX machining centre, dedicated to boring, routing and cutting with a blade, and of the MAHROS automated loading and unloading devices which add the maximum efficiency of a boring line to the flexibility of a machining centre.

The cell is made up of two portal machines which pick and place panels directly from/on the boring machine worktable, guaranteeing continuous boring operations.

Mixed stacks can also be handled, able to meet even medium - small batch machining requirements.

The new patented panel locking **grippers**, which move independently of one another, improve **workpiece positioning precision**, and allow the possibility of boring even in positions on the inside of the grippers, to reduce the number of workpiece pickups and therefore the machining time.

When panels come in multiple configurations, the grippers also reorganise the panels at unloading into the same configuration as when they were loaded.

The Uniflex range includes two models, **S** and **HP**, which have two machining heads in upper and lower positions, fitted with:

- 31 vertical spindles (Uniflex S) / 48 vertical spindles (Uniflex HP)
- up to 10 independent horizontal spindles (Uniflex S) / up to 18 independent horizontal spindles (Uniflex HP) (optional)
- 9Hp HSK 63 manual electro-spindle (optional)
- Fixed or rotatable 0-90° blade unit (optional)

To complete the Uniflex operating range, the models may also house dedicated units for hinge holes and dowel insertion devices.

The HP model is fitted in the upper and lower positions with a machining head having 14 vertical spindles and 4/8 horizontal spindles, with numeric control movement management to optimise:

- boring for shelves (fitting);
- cabinet assembly structural boring;
- horizontal boring for dowel and hardware insertion, with maximum efficiency for out of step centre-to-centre distances 32 mm.

In this way **machine productivity can be increased**.

But the real novelty of the boring cell is the implementation of the **new Watch supervisor** which, thanks to a user friendly interface, guarantees complete control of the cell from a single working position. In use, the automated devices and the boring machine are managed as a single machine, guaranteeing speed and easy use. The cells can be proposed in another two alternative models, able to satisfy special requirements and the cell may be configured with only the loading or unloading machine.

T

technology

routing-edgebanding

bit.ly/UniversalHpEN

universal hp

the multi-function centre for squaring, boring, routing and edge banding for a panel ready for assembly!

Since 1959 Morbidelli has been synonymous with quality and reliability, always supplying unique solutions for the furniture industry. **Universal Hp**, the compact, user friendly machining centre, continues this tradition.

Universal Hp allows the complete production of shaped panels with edging application and finishing, for all furniture makers, for those whose furnish offices, shops and interiors and want all panel machining operations on a single machining centre: squaring, boring, routing and edge treatment. Once removed from the machining centre, the panel is ready for assembly: **a perfect solution for “just in time” production.**

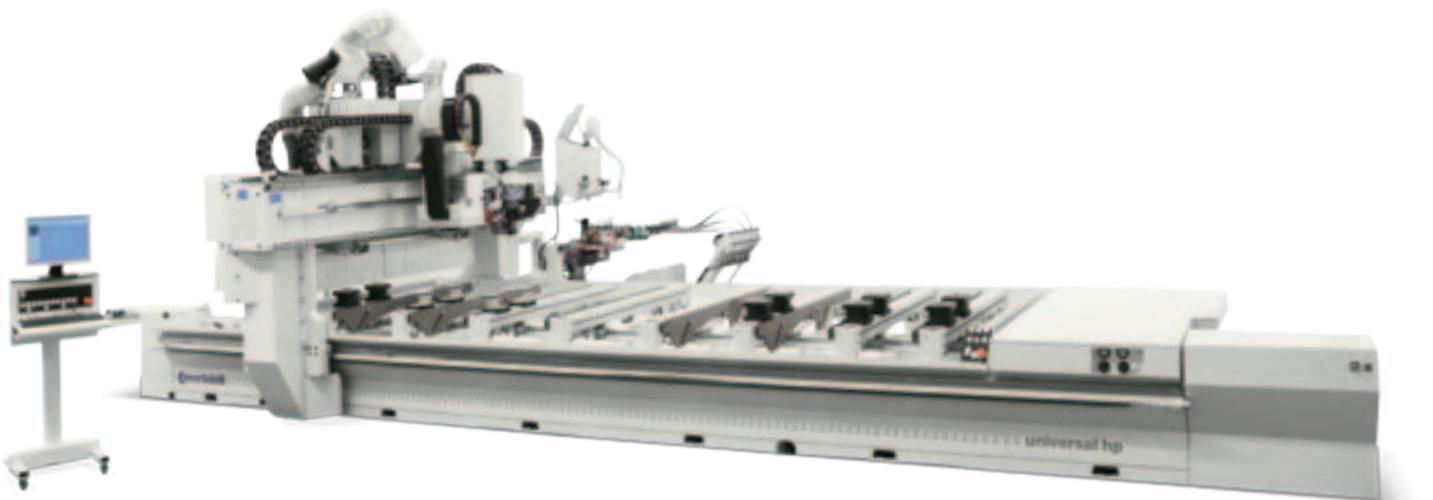
The portal structure makes the machine very rigid and stable, even during the most intense machining. A feature which, together with the extensive possibilities for configuration of the machining heads, means that machining times can be optimised, while maintaining a high quality finish.

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The Universal range includes two models, **HPL and HPE**, with machining depth dimension **1600 and 1900 mm.**

The Universal Hp, the model displayed at Ligna 2013, has an area of up to 4900x1600 mm and can automatically manage up to 6 types of edging.

Finally, the possibility of managing the machining operations **“all in one”** allows improved performance, reduces operating costs and optimises production spaces.



The Morbidelli logo consists of a blue stylized 'M' symbol followed by the word 'morbidelli' in a bold, lowercase, sans-serif font.

technology

lacquering

bit.ly/BravorobotEN

**living room &
bedroom furniture**

scmgroupl leader in

production process and technology

valtorta bravorobot

“working recipes” on demand
for each product to be lacquered

The production for the finishing market requires more and more flexible technologies, which can run the varied products in small batches of high quality, and demands machines that are easily adaptable to future finishing needs.

The Valtorta Bravorobot is the right answer for today's market: it allows the lacquering of pieces with the most varied shapes, with individualized finishing recipes, and an extremely quick colour/product change. The Bravorobot accomplishes this without compromise in terms of quality, thanks to the high finishing level guaranteed by the robotic system.

new software

The new software is particularly rich in functions. It controls the robotic arm and easily adapts to the various needs of each different customer and product by **creating appropriate working recipes for the specific product to be lacquered**. For example, you can program the spraying path on the surface and on the edges of the panels, the number of guns to be used and the sequence of the different spraying phases. Furthermore, the spraying cycle set in the recipe automatically adapts its movements to the size and position of the pieces loaded by the operator.

quick change of the guns holding arm

A even higher flexibility is achievable by installing on the machine a quick change system for the guns holding arm. This makes it possible **to disconnect the guns set installed in the machine and change them in a few minutes, with a different set, so to be able to execute different jobs one after the other without any time wasted for flushing of the spray circuit**. The product change in the circuits can be controlled by specific colour change software integrated in the machine control. The new Bravorobot can, furthermore, be supplied with a conveying system with paper protection (a conveyor with lacquer reclaiming system is also available as an alternative), which makes the machine more versatile in managing different batches and incompatible coatings. Switching from one lacquering product to another one does not imply any waiting time.

All of the above is, of course, combined with special care for the high quality required by top level finishers, and achieved due to the **robotic spraying** and to the **cabin with well controlled ventilation**.



 **superfici**



case history

plants for furniture
production

www.corazzingroup.it

corazzin group

a true “integrated system” completely made in Italy 10 brands specialising in furniture, from living rooms to kitchens. The perfect scenario for putting Morbidelli machining centres to work.

The **Corazzin Group** has a strong history. The North-East Italian company has 10 production units, encompassing the enthusiasm and determination to think up, design and make modern and contemporary furniture. In spite of the difficult times and economic downturn, the company established by Mosé Corazzin in 1971 has spread to an impressive production and management area of 360,000 m²: imposing headquarters, able to meet the demand for designer furniture, from kitchens to living rooms and bedrooms.

The mission is to combine passion and dedication with the needs of youthful customers who put a premium on aesthetics and innovation. “*My life, my style*” is the key concept, which is clear in the meeting of interior design requirements and customer expression, without giving up accessible pricing. All in 10 brands, 10 companies which propose everything needed for furnishing, “*a truly integrated system*” in the words of the founder, who attempts a smile despite the economic and market circumstances which seem to predict something else... «*Unfortunately in the last two or three years 20 to 30 per cent of furniture factories in our area have closed and another 20 per cent are deciding what to do. In the 47 years during which I have been doing this job, I’ve never seen a situation like this*».

«*It’s a long, hard season*» says Mosé, founder and owner of Corazzin Group. «*We’re working in a difficult context, with a strong demand for customisation. We have to be ready to give the market what it wants, and fast. Mass produced furniture has become a thing of the past. A distant memory. Nowadays, we go around the world looking for work, orders, new opportunities. In the last few days we were in Croatia agreeing terms for supplies for several hundred turnkey flats... We’re doing well in Africa, in the Congo, with French and Swiss companies, continuing our search for opportunities in those markets which were once absolutely off limits for us, in spite of the relative difficulties and competition, not forgetting the problem of local labour or that from other countries, with trifling costs compared with those that we face with Italian personnel. Basically, you have to do everything you can...*».

But to face competitors, in continuously changing global scenarios, you certainly can’t risk falling behind in terms of technological development...

«*We certainly can’t carry on like before, when we spent money without asking ourselves if we could afford it or whether it might be better to wait... You have to keep investing, but carefully calculate your strengths and assess the benefits. We are still investing: for example we are considering a complete overhaul of the production line for our company Marka. Today you have to find the right balance between the desire to do something, to invent, to stimulate consumers with new ideas and solutions – and there are no lack of these – considering that there are still the fears of a difficult economic situation, of a country that can’t make precise choices*».

So how do you get through such dark times?

«*The key word is flexibility: you have to be ready to do anything at any time. We now often do work that isn’t in the catalogue. Things that aren’t already in our machines’ programs. That means that even the hundred bedrooms that we may be asked to make for a contract order have to be considered “bespoke”, since all of the information has to be entered into our system*».

living room & bedroom furniture

scmgroup leader in
production process and technology



What technology allows these results to be achieved?

«Machining centres are really flexible! But in terms of industries, of companies machining certain volumes, you need both “systems”, that is to say, both production lines and machining centres, switching from one to the other for the best results at the lowest cost. You always have to make an effort with certain components and customise those items that require it, door leaves, tops, etc.».

A quick look at your production lines highlights the great devotion to Morbidelli technologies, an SCM Group brand...

«Yes, our machining centres are all from Morbidelli!. We have one “Planet”, the ultimate in Morbidelli machining centres, for each of our companies. Mobilstella is the biggest and most powerful, a solution with higher productivity, since it can machine on two worktables simultaneously. At the rear of the machine there are double units for contouring, so that each worktable can proceed with the programmed work independently. Basically, we load the two workpieces which are carried to the rear area, where all contouring, cutting, routing and boring operations are carried out. Once the workpiece is finished the worktable slides towards the front and here the edge banding unit applies the edging. The worktable then returns “behind” the machine for all edge finishing operations, then the item, again brought to the front of the “Planet”, is unloaded. The operator only has to position the item, the panel according to the references provided by the machine and unloads it finished, with completed contouring, boring and edging. We carry out certain “special machining”, taking advantage of the two worktables. But we can also machine large workpieces, programming both tables as if they were one. This lets us machine items as large as 3,600 mm, which we otherwise wouldn't be able to handle.

Obviously, productivity falls, but the flexibility allows us to overcome many problems. And once you start using it, you wonder how you ever did without it! It's a machine that definitely knows how to make itself indispensable. We have seven in the group's factories and everything outside the line goes through them. We can use the edging we want, up to 60 mm thick. And I must say that we've been using them for several years and they're very reliable. A guarantee!».

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Mosè Corazzin

nh akustik + design

Superfici coating line

The visit we are going to describe in these pages took place in neighboring Switzerland, in a pleasant village on the mountains, where it is located a company that coats its handmade wood-products, on a system line for the coating of waterborne products in various color completely designed and made in Italy.

The Swiss company, whose main products are on the market with the brand **Topakustik** it is the **NH Akustik+Design**, in the canton of Lucerne, one of the leading manufacturers of panels and planks for sound-insulation in rooms.

The Italian plant manufacturers, who first engaged in research of coating technologies with low environmental impact, have been chosen by foreign companies which have their strengths in the change of solvent to water with the installation of high-level plant system.

The type of wood coating with UV coatings, born in Italy, now enriched by the water-soluble nature of the products used, still proves to be more and more a winning industrial choice on a technical-qualitative environmental and logistical: Superfici (SCM Group) in Monza, near Milan, that installed the coating lines we talked about, it is specialized above all, in automatic UV waterborne coating plant manufacture. Even the Swiss company visited, started as a carpentry, so at the beginning it made everything in wood until Arthur Fries, still the owner, decides to pursue, twenty years ago, exclusively to the production of current manufactures, which over became always more defined, refined and performance properties of excellence, so as to be able to boast of an international patent and position of the company who designs and realizes them became a world leader.

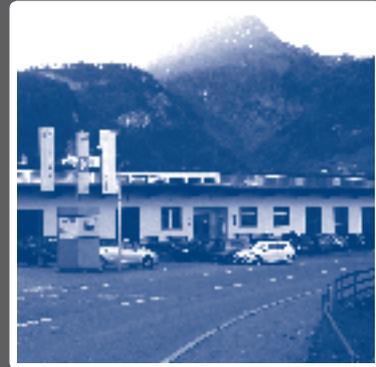
The waterborne coatings line was installed by Superfici in 2010. It's the second coating line system, made by Superfici, installed in NH Akustik+Design: in fact, *«by reason of the excellent results obtained with the first plant,, chosen years ago for the quality guaranteed by the brand and the number of large companies provided - has confirmed Georg Hegglin, the product manager who greeted us and led during the visit (in photo with Gloria Valtorta from Superfici) –We have no doubt in repeating the previous experience with the innovative coating line, customized on production our requirements in the meantime acquired. Everything works very well and our impression have been confirmed by the coating of hundreds of thousands of manufactures. We are totally satisfied by this relationship with Superfici»*

The coating line has been designed having in mind on one hand the need to ensure a finishing typical of high quality furniture, and on the other compliance with the performance in terms of noise control, which are the specific components, exclusive and distinctive of NH Akustik+Design panels and plants.

Not an easy task, which led to the draw on all the resources that, for a final result of completely adherence to user's requirements, the manufacturer must consider: starting from the coat to be used, the application equipment, to drying time required and so on; all these details together determine the success of a unconventional, non-standard, definitely dedicated coating line system.

The experience of Superfici, a partnership with a user aware of the goals to be achieved, the use of coatings confirmed the success of the coating line equipment.

from Vdl - Verniciatura del legno



top akustik

TOPAKUSTIK is a NH Akustik+Design registered trademark of the company located in Lungern, since 1991 offers its products all over the world, starting from research and expertise, combining aesthetics and acoustics. They are ceiling and walls with high quality materials produced according to customer's specific requirements, for example the Renzo Piano Building Workshop chose Topakustik 14/2 panels with grooves staggered respect to the edges and American cherry veneer panels for the Auditorium of New York Times, where worldwide journalistic and political events took place.

All panels and planks are made particularly for auditorium, banks, restaurants and other areas: renowned buildings, where the sound-insulation give them a touch of originality.

Among Superfici machines at NH akustik+design

valtorta f1

roller coater

PLC-controlled, with the possibility of retrieving and saving operating recipes.

valtorta bravorobot

5-axis spraying robot

On the stationary load in the large pressurised booth, this robot performs the preset operating cycle, adapting it to the dimensions and shapes of the workpieces detected at the machine infeed. The finish is applied here in the most diverse colours, depending on the order. A quick colour change, combined with the quick-release system for the spray gun holder plates, allows a fast switch over from one operation to the next. On panels with complex routing, even the base coat is sprayed on, so that it also reaches the inside of grooves with the correct colour.

contivert

vertical drier

For drying the paint sprayed on, with 32 belt trays. The drier has optimised ventilation for flash evaporation and drying of water-based products.

poliedra

UV drier

Ideal for final polymerisation of UV finishes with modules having reflectors specifically designed to convey UV light evenly onto the surface and edges of the panels. The drier is fitted with a gallium lamp and a mercury lamp for polymerising even pigmented UV paints.

Gloria Valtorta & Georg Hegglin

The photo-report was written by the editorial staff of "LA RIVISTA DEL COLORE" and published in unedited form in "VERNICIATURA DEL LEGNO" – a specialised journal of ANVER (Associazione Nazionale Verniciatori – the National Association of Painters (self-employed and for third parties))

superfici

business furniture

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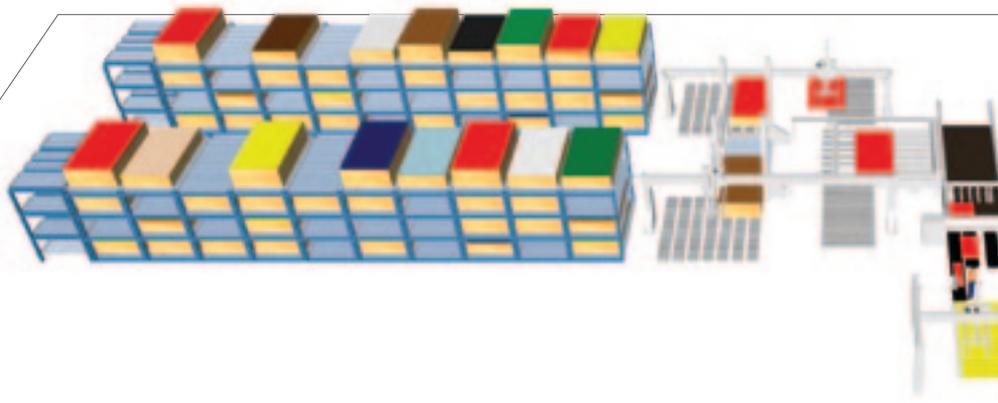
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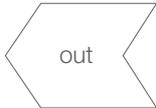
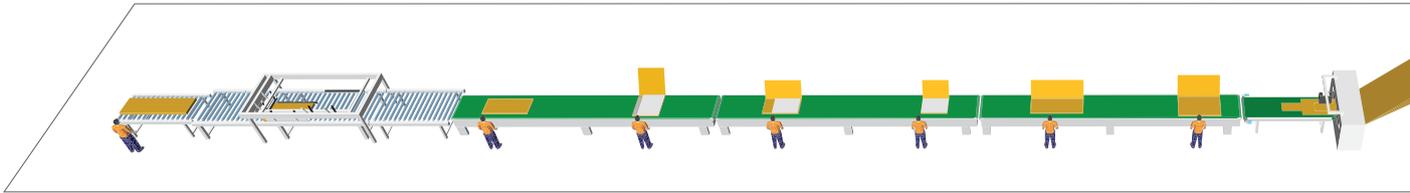


storage

1 sizing



5 packaging



business furniture

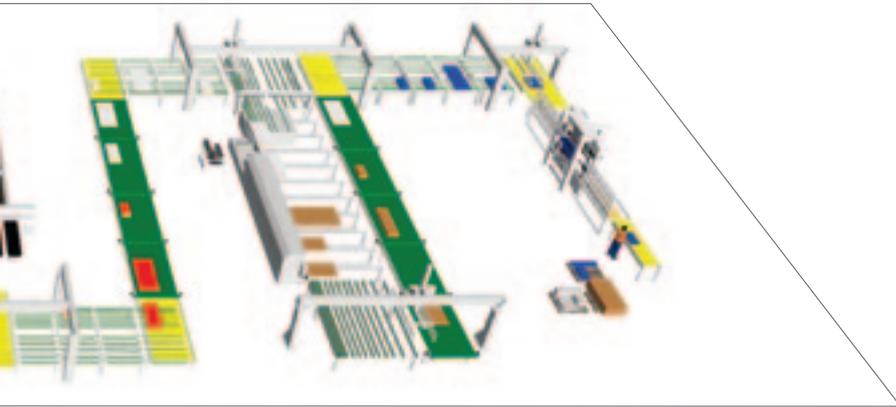
production process

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buffer

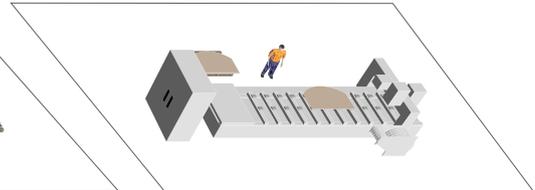
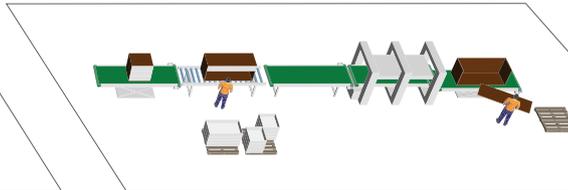
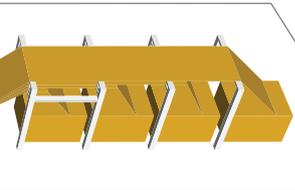
2 square-edgebanding

3 boring-inserting



4 assembly

2B cnc edgebanding



the high-tech office: Batch 1 edgebanding solutions

77

the advantages of mass production even on single orders

The office furniture production process covers the production of individual items such as cabinets, partitions, desks, drawer units (usually assembled) and other furnishing accessories.

The production process is highly customised as regards the office style requested by the customer.

The production plant shown is an integrated and flexible solution for panel sizing, edge banding and boring managed by a single supervisor, equipped with other lines for assembly and packaging.

Main technological solutions for making office furniture:

- The new **Gabbiani Galaxy 2 90** single-blade panel saw with **MahrosFlexstore EL** three-axis gantry loader, also allowing angled cuts
- The new **Stefani Easy Order AZ** batch 1 edge banding cell with automatic panel recirculation during the various edge banding stages

Integrated plant features:

- Production capacity: approx. **800 pieces/shift**
- Personnel needed: **3 operators**
- Area: **2,400 m2 (including store)**

**business
furniture**
scmgroup leader in
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easy order az

the flexible batch-one edgebanding cell

Total flexibility, fast changeover, best finishing quality

A **batch-one "intelligent" edgebanding cell**, that checks all current operations one thousand times per second, achieving unimaginable efficiency and versatility standards: for any daily production volume – three kitchen sets or a living room, one single shelf or an entire office furniture set – using **"Easy Order Az"** is always cost-effective.

«Batch-one edgebanding is a hot topic in the furniture industry», said Johnny De Leonardis, product manager Stefani. «Scm Group wanted to have a say in a market where production to order is standard, and therefore, effective, versatile and highly flexible technology is required for daily production that can be very different in terms of visual aspect and, most of all, quantity».

To respond to this challenge, Stefani engineers defined an edgebanding cell that enables one single operator to produce even very small quantities cost-effectively; the machine is conceived to handle any discontinuity and interruption during working shifts. A gap of 800 millimeters between two subsequent workpieces is enough for "Easy Order Az" to setup all the aggregates required. Transitioning from one edge to another occurs with no waste of time and no limitations related to gluing quality, edge type, height or thickness.

*«It's a new **concept of edgebander** – says De Leonardis – a machine conceived, designed and built to handle more and more fragmented batches, while ensuring the maximum benefit to users in just 200 square meters, one third less than it was previously necessary, thanks to the new cell architecture».*

An interesting feature is the system that allows to size the workpiece perfectly in one pass, independently of the previous cutting quality: an additional milling aggregate outside the edgebander, running at up to 100 meters per second, moves quickly into position and collaborates with the standard unit to reduce the panel to the desired geometry, independently of its dimensions. The operator only needs to introduce the workpiece into the machine: with the **"Sidefinder"** technology, he will constantly see how it must be positioned to perform the requested machining operations. The supervisory system keeps each piece closely monitored, providing all information in real time.

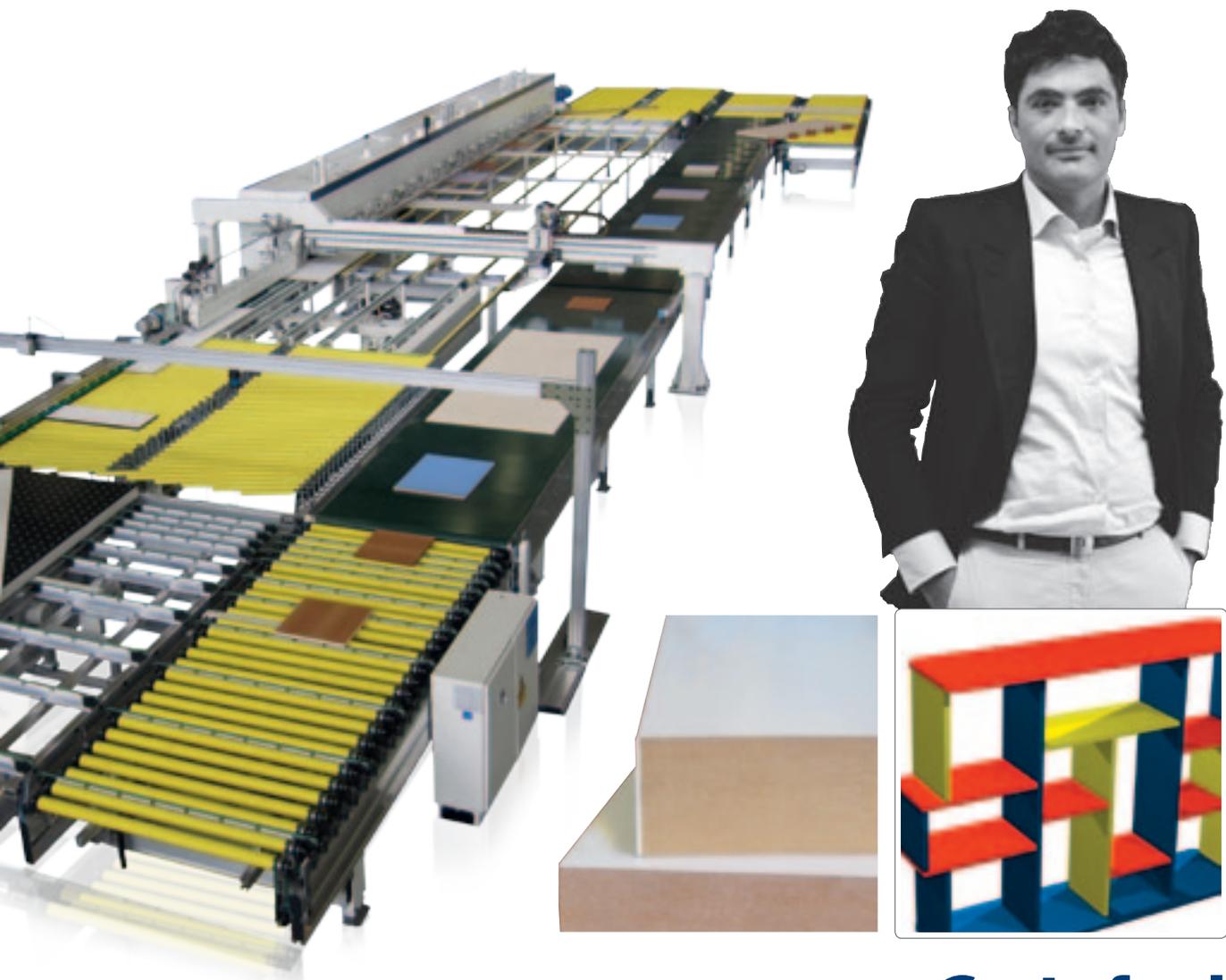
Operation quality, fast changeover, great orthogonal accuracy of parts, total flexibility for smaller and smaller production batches, down to batch one: all these features are enabled by a **"superprocessor"** that checks all sensors, axes, positioning and operating units one thousand times per second. This is the challenge won by the edgebanding cell "Easy Order Az".



piet bookcase unlimited creativity

Turning an idea into reality, managing the complexities of it and quickly and easily mastering the tools necessary. This is the context in which the **PIET** bookcase was created, an example of how the integration between creativity and various SCM Group technologies can produce an object for day-to-day use, which only looks like it has a simple design.

PIET is a **freestanding bookcase**, made of panels which have different dimensions, in a modular style. The traditional technologies and architectures of production systems would not allow cost-effective production, since the variability of the components results in non-saturation of the plants. The new batch 1 panel sizing, edge banding and boring cells from **GABBIANI**, **STEFANI** and **MORBIDELLI** promote production saturation with any level and type of production, making any idea, even the most non-conformist, economical and industrially feasible. PIET, displayed and mass produced for the **LIGNA 2013** exhibition and in cooperation with **REHAU** and **KLEIBERIT**, was donated by SCM Group to several German benevolent organisations, including day nurseries and schools.



galaxy 2/ flexstore el

the new ideal cell for control

a galaxy of mixed panels.

Gabbiani and Mahros present to small- and medium-sized furniture making companies a fully automated cell designed for those seeking a high level of flexibility and high quality sizing for BATCH 1 production. The cell consists of the new **Galaxy 2 go** single-blade panel saw and the **Flexstore EL** three-axis gantry loader and is extremely versatile, with top quality components and great reliability.

The cell has a store which can be configured with various placing stations fed from picking stations: the gantry arm, equipped with suction cups, picks up the panels loaded on the starting positions, creating the store from which the panel saw will be directly fed.

The **WATCH STORE** integrated software with user friendly interface allows various operating modes to be controlled and allows **high production performance**.

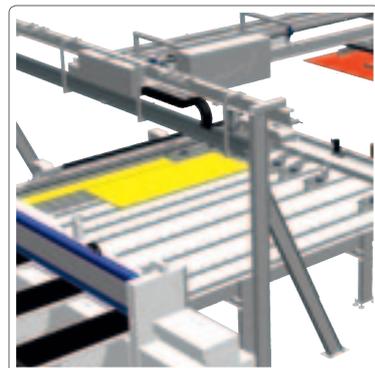
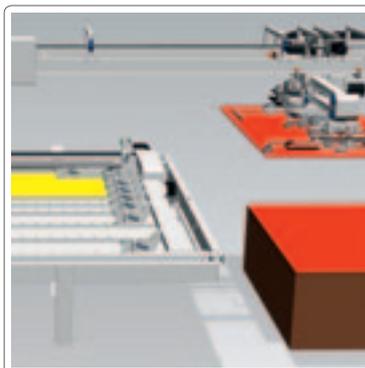
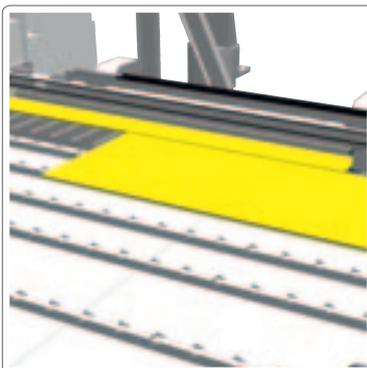
The new software, completely developed by SCM technicians, allows real time control of the store status, integrating with the panel saw for optimised production management.

Sizing offcuts can be managed, remaining saved in the system, thereby guaranteeing optimum use of the material and limiting waste. In particular, offcuts are managed on manual external stores.

There are also complete, effective diagnostics, able to supply production reports and with the possibility, upon request, of dialoguing with customer management systems.

The heart of the panel saw is the new **FlexCut 1/S** system which, consisting of a single-grippers unit mobile with a stroke completely independent of the main pusher, **also allows the most complex cutting patterns to be performed in very low times**. The device also **allows the cutting axis to be used as if it were an angular machine**. This means that during the same machining cycle it is possible to make both longitudinal and transversal cuts, **increasing productivity by up to 40% and with a space saving of up to 20%**.

The extreme flexibility of the FlexCut 1/S is also guaranteed by the presence of the main pusher grippers, which can be excluded from the machining area, so that strips with different widths can be secured and as a result any type of different cutting can be performed without limiting the stroke.

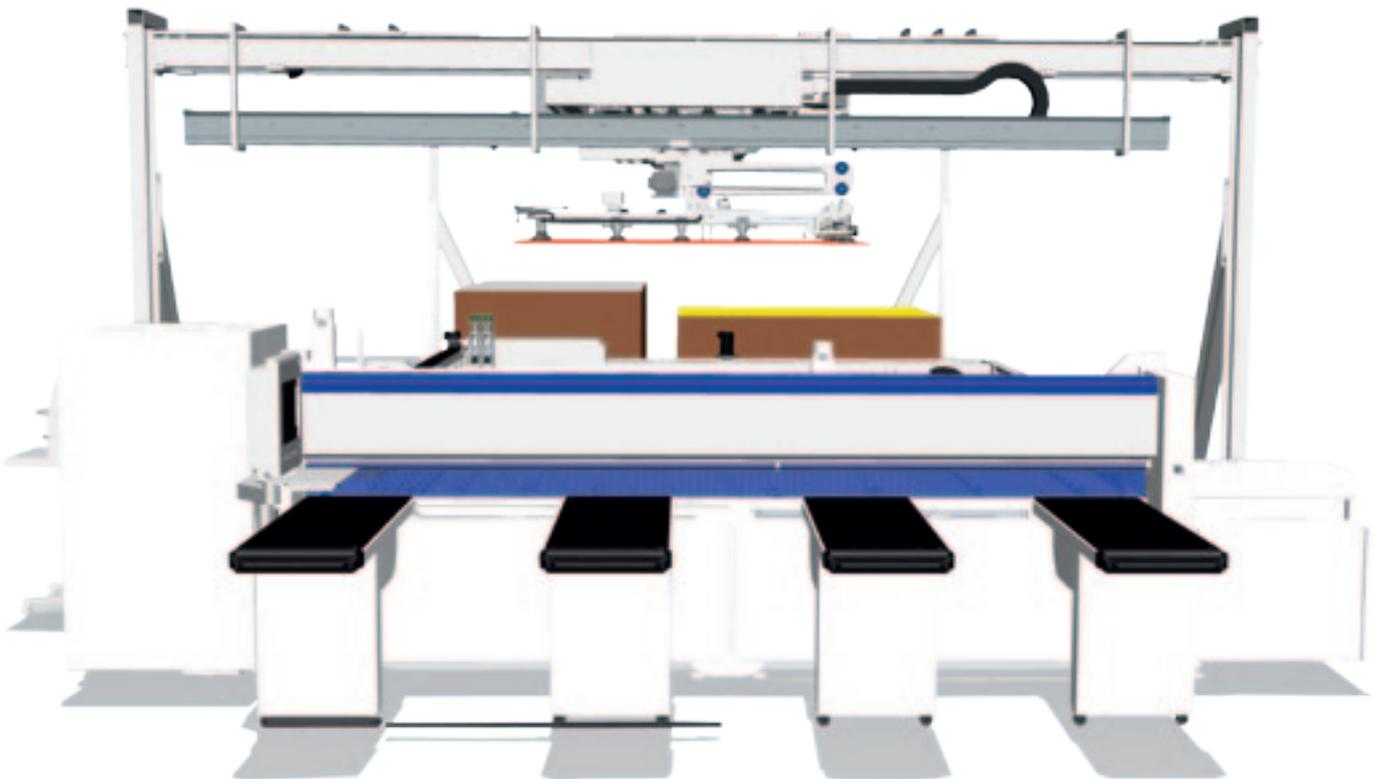


flexstore el: for mixed stacks

The new **Flexstore EL** store can manage **both homogeneous and mixed stacks**, made up of panels of different sizes. 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 adapts to the different lengths and thicknesses of the panel to be picked up and, moving both horizontally and vertically, can move in the three main directions. It can also rotate, for loading panels in the panel saw even transversally. The suction cup arm also has a pneumatic device for panel front detachment, and a device for detecting the weight which checks that it has actually detached.

Upon request, the machine can handle unmachined and/or thin panels (3 or 6 mm depending on the material).





case history

technologies for business
furniture production

www.aleaoffice.com

alea

“Authentically customised” office furniture.

Not “catalogue” furniture. Instead, it’s designed by the customer. With no stock held, thanks to the flexibility of the production plants.

«I have always been a carpenter, I even spent many years working in Switzerland. And at a certain point decided to set up my own workshop: it meant a lot of work, but was much more rewarding...». Rino Carlot met Aldo Comelli in 1973. Together they set up **Alea**, a leading company in the international market for office furniture, with headquarters in Sarone (Pordenone province), one of Europe’s most dynamic and distinguished production districts. It was there, in a 15,000 square metre factory, that they made executive lines and operating system, chairs and items of furniture with a unique design and, as they always say at the company, “authentically customised”.

«Before Carlot and I met, I was production manager at Presotto Rino» says Aldo, *«until the desire to be my own boss took over, partly thanks to meeting Rino. At that moment we realised that we could work together and we got started. Forty years later, we’re still here...».*

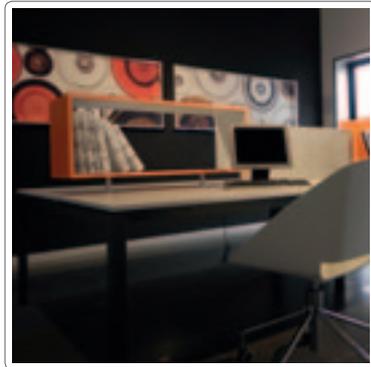
Many companies established in Italy after World War II involved years of sacrifice, living between home and work, where work became a way of life and absolute duty. But without passion and determination you can’t get far.

«We started making pieces out of curved plywood» continues Comelli, *«then we made tables, completing the catalogues of the biggest names in Italian furniture, above all for the Alto Livenza area where much of the Italian furniture making industry is concentrated. It was an intense time: at one point we noticed that the office furniture industry had an extremely interesting growth trend, of around 10 per cent a year. So we decided to leave tables and to get into a sector that looked very promising. Unfortunately, those were the years of “Tangentopoli” bribes and political corruption, and within just a few weeks the office furniture market literally collapsed. But we kept going, gaining experience at the worst possible time!».*

We were able to gradually build on that experience, and today sales are around € 10 million, 90 per cent of which are worldwide exports of operating and executive office furniture. *«In the beginning we also made wall systems points out Comelli, but we quickly realised that our vocation was making just furniture. In recent years retail and standard products have really suffered, so we shifted our focus to contracts. That’s why we invested in a large, flexible production line, basically a kind of automated factory, choosing SCM Group as our partner. We do bespoke work for customers, to their specifications, to suit their needs. Our furniture is no longer “catalogue” style, but designed by our customers, by their architects. So, I say again, we don’t hold any stock».*

It was the best possible move, which is getting us through the crisis by taking us international, says Carlot: *«Until 2006 we grew, then from 2007 onwards there was a downturn. The Italian market has been sluggish for some time now: there’s a lot of work abroad, where we compete with huge companies for international contracts. For our part, we can offer rapid bespoke solutions, thanks to our just in time production capacity for orders of any size. We recently won an order in the United States for a major pharmaceutical industry, for which we are making just under three thousand workstations!».*

Diverse products call for considerable flexibility, but at the right price. Technology plays an important role in this. *«We have always invested in technology. We have around 100,000 product codes, and that’s a conservative estimate, 100,000 different items! We work to order, with no stock held. We have worked to “bring order to chaos”, from the panel delivered to us by the supplier, to the furniture or item packaged and loaded on the truck for shipment. In two weeks for melamine, three for solid wood with veneer, we’re ready to deliver.*



We have around fifty employees, half of them working in production. That figure justifies our decision to go with highly automated innovative technologies. The operator's supervision is always essential, but nowadays you can't build a company without machines that only need limited operator presence».

Who chooses Alea? *«We work with companies which hold the contracts with end customers, dealers and resellers who win the order from the end customer or from firms of architects. They send us their request, we look at possible solutions, present them and produce samples which accompany our offer. And if everybody is happy, we begin production».*

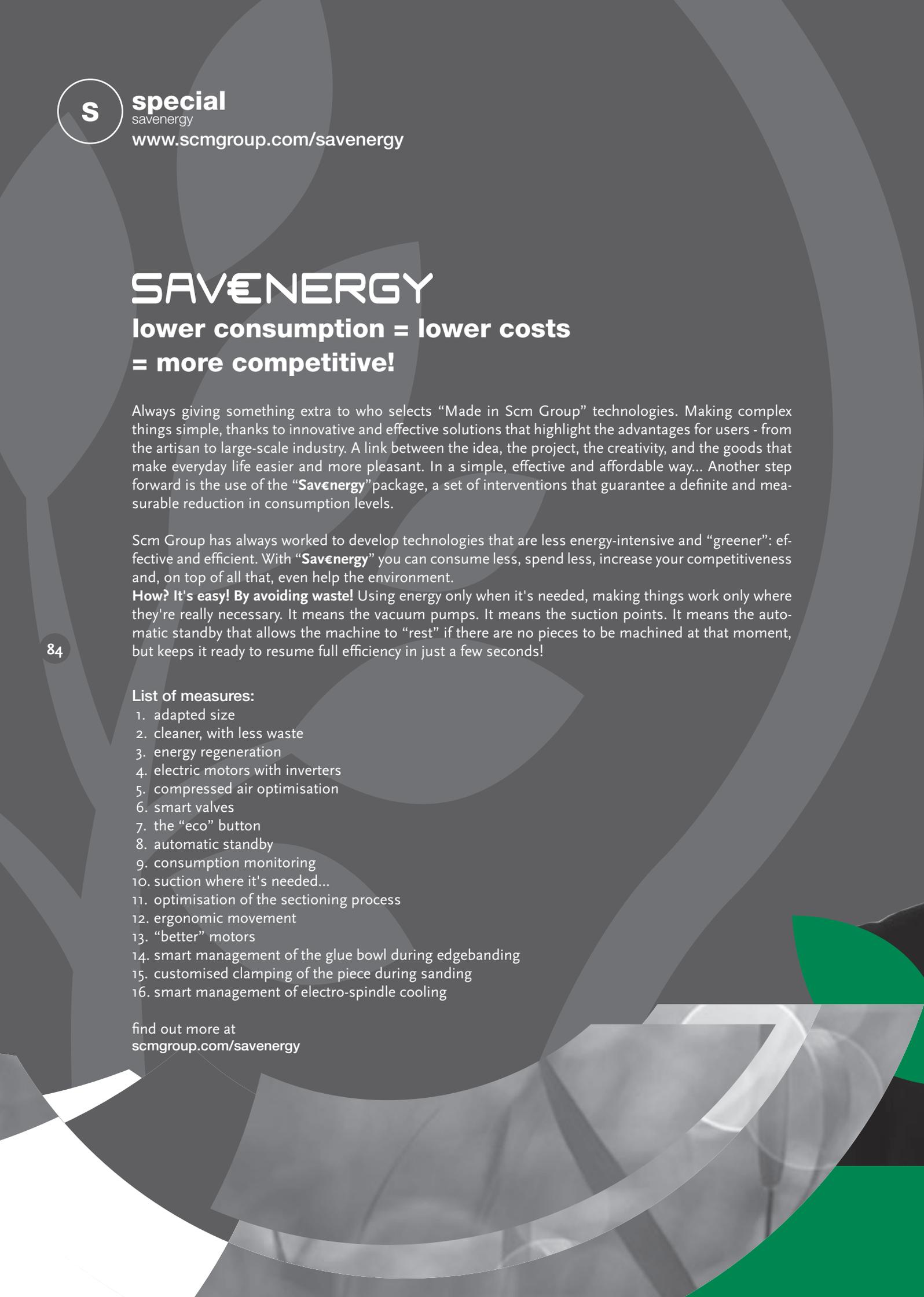
Rino Carlot accompanies us into the factory, the heart of Alea, where the wood comes to life.

«We made a very specific choice: we acquired a store for panels which is around sixty metres long, very efficient, highly automated, which is the start of the production line and from which we take what we need, when we need it, to turn it into the furniture ordered, optimising the material. Depending on the production batch launched from our technical office, a shuttle takes what is required from the store and carries the panel or panels directly to the SCM Group line. The loaders load them and everything starts: panel sizing, edge banding, boring, routing, packaging, making up the order».

How is the production process implemented in detail, guaranteed by the SCM Group machines?

*«The sheets are sent for sizing by two **Mahros** gantry loaders. From a single sheet to five stacked sheets. The **Gabbiani** "Flexima 105" angular panel saw cuts the wood to the required dimensions. The various items are labelled and another Mahros loader creates "packets" of items of the same size to be sent to the edge bander, whose work is optimised thanks to the fact that it receives together – always depending on the order being processed – the largest possible number of workpieces of the same size, in the same colour, even though it can easily machine in sequence a workpiece that is different from the previous one. The workpieces go as often as needed to the **Stefani** "Evolution One" single-end edge bander - thanks to a classic workpiece return system – so that the edging for that particular item can be applied. Once the edging is complete, they are sent on for boring, carried out by a **Rem** vertical boring unit. The machining process? It's practically fully automated: just **two people** are needed to completely manage this "automated factory", which takes up a little over 2,000 square metres, where all Alea production takes place. A "**batch one**" line from panel sizing to finished product, ready for packaging, managed by a supervisor who knows precisely where each item is and what machining is being performed on it».*

The second generation is in training at the company: **Tiziano Carlot** is export manager for the United States, France and Canada; **Paolo Carlot** is sales director for Italy and **Michela Carlot** is admin manager.



s

special
savenergy

www.scmgroup.com/savenergy

SAVENERGY

**lower consumption = lower costs
= more competitive!**

Always giving something extra to who selects “Made in Scm Group” technologies. Making complex things simple, thanks to innovative and effective solutions that highlight the advantages for users - from the artisan to large-scale industry. A link between the idea, the project, the creativity, and the goods that make everyday life easier and more pleasant. In a simple, effective and affordable way... Another step forward is the use of the “**Savenergy**” package, a set of interventions that guarantee a definite and measurable reduction in consumption levels.

Scm Group has always worked to develop technologies that are less energy-intensive and “greener”: effective and efficient. With “**Savenergy**” you can consume less, spend less, increase your competitiveness and, on top of all that, even help the environment.

How? It's easy! By avoiding waste! Using energy only when it's needed, making things work only where they're really necessary. It means the vacuum pumps. It means the suction points. It means the automatic standby that allows the machine to “rest” if there are no pieces to be machined at that moment, but keeps it ready to resume full efficiency in just a few seconds!

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List of measures:

1. adapted size
2. cleaner, with less waste
3. energy regeneration
4. electric motors with inverters
5. compressed air optimisation
6. smart valves
7. the “eco” button
8. automatic standby
9. consumption monitoring
10. suction where it's needed...
11. optimisation of the sectioning process
12. ergonomic movement
13. “better” motors
14. smart management of the glue bowl during edgebanding
15. customised clamping of the piece during sanding
16. smart management of electro-spindle cooling

find out more at
scmgroup.com/savenergy



savenergy

The answer to today's challenges, but with an eye to the future.

Environmental impact and energy consumption are fast becoming an important competitive factor: **SavEnergy explained by Marco Antonelli from SCM Group Technical Office.**

lower consumption

Energy is a significant and constant element of the **"Total Cost of Ownership"** of a tool machine (that can reach 17-20%), and end users - who now take for granted aspects like quality, safety and productivity - are now paying special attention to the energy consumption aspect. Directive 2005/32/EC of July 2005 (updated in 2009 and known as the "EuP Directive") will make eco-compatible design compulsory for many products "that consume energy (EuP)", defining their design requisites. With SavEnergy, **SCM Group is already ahead of the times!**

reduced costs

Improving the environmental performance of SCM Group's tool machines, but that's not all: we want to help the end user get a **quick return on his investment**. How? By making definite inroads on "energy consumption" during use, thanks to **16 specific measures**. The most important of these is to minimise the energy needed for chip removal and axis movement and, above all, the energy consumed by auxiliary services such as compressed air and suction.

greater competitiveness

One of the primary goals is the **standby** condition, with the easy (automatic or manual) transit to this status from a processing phase, and the quick return to production. But the **component aspect** is also fundamental if we want to obtain notable energy performance improvements: bearings, motors, inverters, pumps and chillers are of the utmost importance. Without forgetting the **precise sizing of the components**, the significance of **efficient programming**, and the **optimisation of the various work cycles**.



eng. Marco Antonelli
SCM Group Technical Office



global solutions for

custom made interior furniture

scmgroup leader in

production process and technology

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accedi all'area interattiva su
scmgroup.com





1 cutting

panel dimensioning

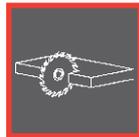
si 7 L'invincibile
si 5 L'invincibile
si 3 L'invincibile
s1 400 class
s1 350 class
s1 300 class
si 400 nova
si 300 nova

vertical panel sizing

verticut

horizontal panel sizing

sigma impact p
sigma prima p
sigma impact
sigma prima



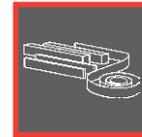
2 edge banding

manual

m 80
m 80 t

automatic

olimpic s 1000
olimpic k 800
olimpic k 600
olimpic k 560
olimpic k 400
olimpic k 260 evo
olimpic k 230
olimpic k 130



performance
innovation
reliability



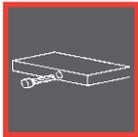
3 boring

semiautomatic

multitech plus
top plus
startech

automatic

tech z5
tech z2
tech z1
cyflex f900
cyflex h800



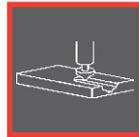
4 routing

multifunctional table (nesting)

pratix z5
pratix z2
pratix n
pratix s

table with bars

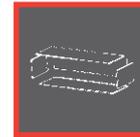
tech z5
tech z2
tech z1



5 assembling

assembling

assembla



easy installation
user friendly

T

technologyplaning
mouldingbit.ly/ProfisetEN

profiset 60 ep

the sturdy and with high quality components automatic planer-moulder that always guarantees the best performance

Profiset 60 is characterized by a sturdy structure and the maximum versatility and safety that guarantees in all machining.

Powerful, efficient and linear feeding is ensured by the gearbox feed drive system and the cardan joints combined with the pneumatic pressure on the feed rollers.

Simple and intuitive management of all machine functions by means of the "Easy Plus" electronic control with 7" colour display, 16:9.

The new gearbox feed drive system and the cardan joints is the technological focus of this machine in order to grant higher productivity and more and more the best finish levels. These results are obtained by the pneumatic pressure on the feed rollers and the inverter for the continuous speed control.

The **profiset 60EP** electronic version **ensures a simple and intuitive machine programming** and set up for the best use also by not-skilled operators.

The automatic 3-axes control (width, work piece height and relevant working speed) is supported by the **assisted manual programming** that, due to the possibility to manage the pictures, **simplifies all machine set up operations.**

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**new!**

olimpic k 560

the compact edge bander

for high productivity when edging panels.

A **compact and productive** edge bander designed to operate for many hours per day with a 16 m/min feed speed. It is the perfect solution for all companies that require high productivity when edge banding a large number of panels at the same time.

Due to its **optimum performance-price ratio**, even a small woodworking or furniture company can have a reliable edge bander with an excellent finishing quality and high productivity.

These results are obtained due to the proven and tested technological features that are fitted on the machine, for example, the feed track with a 1 1/4" industrial chain and the large dimensioned glue pot that can contain 2,5 kg of glue.

Olimpic k 560 also features:

A perfect glue joint line obtained with the glue roller that ensures uniform glue application on all materials.

Rapid work changeover between thin, thick and solid wood edges due to the 3-positions trimming unit equipped with "Combi" tools.

Error free machining and optimum visualisation of information with the Orion One Plus control with 4" display.



new!

T

technology

machining centre

bit.ly/Techz1ProEN

tech z1 pro

the new flexible cnc machining centre with bars and with “pro-space” protections.

Designed for “all woodworking and panel processing companies” that have a limited factory space. The tech z1 pro is equipped with technological solutions ensuring **higher productivity with very much reduced set-up** times and ease of use.

The new tech z1 pro now offers a better performance due to:

- **an increase in performance** with 180mm panel clearance and 250mm stroke in the 'Z' axis
- **“PRO-SPACE” machine protections**, with the absence of perimeter guards. These are mounted directly on the mobile upright! The “PRO-SPACE” protections significantly reduce the machines overall dimensions limiting them to within 14,5 m² - a real record! Furthermore, free access to the rear of the machine is completely safe and the very compact dimensions are guaranteed.
- **reduced investment** for a machine that is more and more at your fingertips

Not forgetting that the machine is equipped with:

Cantilever structure: the only structure that allows the loading of components along the 'Y' axis far larger than the working capacity of the machine (1550 mm).

Mechanical fixing of suction cups: the certainty of quality results is guaranteed by a powerful mechanical grip that locks the vacuum cups into position. An unrivalled Scm patented system even when working in heavy duty machining conditions!

Boring heads: indestructible and with low maintenance.

“Autoset”: the most practical and economical system that, using a special driving device, uses the movements of the machine body to position bars and suction cups.

“Tecpad”: the standard remote control with LCD display, with 7” colour touch-screen that allows the operator to fully manage the machine intuitively.



new!

technology
circular saws

**custom made
interior furniture**
scmgroup leader in
production process and technology

10 years guaranteed

reliability and technology without comparison.

Since 1992, when Scm's exclusive sliding carriage was patented, more than 60,000 end users worldwide can testify the very high cutting quality of our circular saws.

Long lasting quality and precision with hardened steel guides utilising an exclusive method of mechanical fixing without the presence of glue or screws that often require adjustment and do not provide precision overtime. The Scm solution allows for an exclusive interference fit, which eliminates all play and the presence of components to be adjusted, ensuring the total absence of vibration.

A perfect self-cleaning system that uses horizontally orientated guides, therefore totally protected from dust and shavings that, on the contrary, are present in all systems that use wheels running on rails. The presence of dust scrapers and sponges ensures the guides are always cleaned avoiding any wear. Highly reliable system for the **very best finishing quality and therefore the creation of prestigious end products on the saws.**

Scm guarantees the vital part of the saw for 10 years!



new classic series

all you need for your woodworking workshop:
complete machines range, advanced technology and user
friendliness

From universal combined machines to single-function machines to offer products for any working requirement, with the best price to performance ratio with the essentiality and practicality required by DIY woodworkers and craftsmen.

Which are the **technological news for the Classic series?**

- **incredible cutting** of both very thick solid wood and panels, **even those that are veneered**, due to the new saw unit with a blade that has a **maximum diameter of 315 mm with the scoring blade fitted**
- **easier and more precise cutting** is possible due to a perfectly stable support that is guaranteed, even for large work pieces, by the **wide sliding table and the large squaring frame with telescopic fence provided as standard**
- **thicknessing is more comfortable**: in the universal combined machines, during the changeover from surfacing to thicknessing, the surfacing tables **open simultaneously towards the inside of the machine, with a 90° angle.**

* = option for fs 41, fs 30 and sc 2 classic



All this with a **5 kW standard* motor power**, with reduced overall dimensions.
The new CLASSIC series, with a wide range of technological accessories, improves and customises the machine's performance for any requirement, such as the **digital readout for the fence position for parallel cuts** that allows precise positioning due to the use of the magnetic strip sensor.

The Classic series includes the following models:

- cu 410 and cu 300 combined universal machines
- fs 41 and fs 30 surfacing-thicknessing planers
- st 3 saw-spindle moulder
- sc 3 and sc 2 circular saws
- t 45 and t 45 w spindle moulders





case history

machines for custom made
interior furniture

www.sanpatrignano.org

sanpatrignano

joiners in second life

In the community founded by Vincenzo Muccioli, a joiner's workshop has been operating since 1980.

Supported by Scm Group, it provides young people with an opportunity to find a new job, with a focus on design with a capital "D"...

Technical and handicraft skills, creativity, willingness to make, to grow, to change... for a purpose that needs no big explanation: the treatment, recovery and social inclusion of people whose life was crushed by drugs. This is, briefly stated, the **Joinery of San Patrignano**, an excellence of the treatment and recovery center established by Vincenzo Muccioli in 1978 in Coriano, near Rimini, hosting 1,300 people approximately. We had the opportunity to get acquainted with the community, to spend a day there, an experience we recommend to all our readers...

The joiner's workshop is an integral part of the community, one of a thousand activities and hosts of services that are born here and always have a different flavor. Joinery is an opportunity that San Patrignano offers to those who want to change their lives, an opportunity that has been growing for thirty years, also thanks to the longstanding friendship between the Aureli family and Muccioli, who has always counted **Scm Group** among their strongest supporters. Initially conceived to supply furniture, interior decorations and wood constructions for the community, in few years it turned into a real workshop: classic, traditional furniture, with manual skills making the difference. But then things changed, because *«life is the art of encounters»*, said Vinicius de Moraes. And encounters affect your life, such as the meeting with **Maurizio e Davide Riva**, owners of Riva 1920 (www.riva1920.it), whose fantasy and passion for wood resulted into the **"Barrique"** project, involving about thirty star architects, designers and industry professionals such as Luca Scacchetti, Matteo Thun, Mario Botta, Aldo Cibic, Paolo Nava, Aldo Spinelli, Terry Dwan, Pierluigi Cerri, just to mention a few. Mission: reuse the oak wood of "barrique" casks for wine aging, another excellence in the San Patrignano community.

During our visit, we were guided by **Marco Stefanini**, who knows this story very well. He was a "San Patrignano guy" himself, he arrived on the hills in Romagna at 18, now he is the workshop manager. He is a bit older, but he is still the boy who wanted to tell everyone about what he had inside. Thank you, Marco. *«Our joiner's workshop was created in 1980, one of the very first initiatives of the community. We made the tables, chairs, beds, windows and doors we needed. We managed our own house assets. We were all very young and inexperienced. We had learned a few tricks here and there, we were just so willing to do something... then we got to know more and more "important" people, we got in touch with designers, engineers and famous artists. I remember **Renzo Mongiardino**, a great interior designer who brought all of his craftsmen to live in San Patrignano... I remember **Patrizio**, a great joiner, who taught us all he knew! A small team, five-six boys who learned to job and became the "core" of the joiner's workshop. One day, Vincenzo Muccioli decided to involve **local craftsmen**, retired people who were offered a second opportunity to be active with us in the community, to share all their expertise with knowledge-hungry persons like us. Not only for joinery, but also for out textile laboratory, for decorations and for many initiatives that were about to start. Then, the joiner's workshop has started working for external customers, too. Classic furniture, handicraft measure-made pieces, cabinetry. We have approached the market and realized it is not easy, we had to spend too much time outside the center, a situation that is hard to handle for many guys. So, about ten years ago, we had an idea: make **a catalog of standard furniture**, representing our style, our vision, with the support of selected designers, and then sell them directly to the market, through stores and showrooms, directly to final consumers».*

Is it just furniture?



**custom made
interior furniture**
scmgroup leader in
production process and technology



«No, we have tried to preserve some market opportunities we had opened in the past .I am referring to ship-building, to measure-made furniture, and special initiatives like the “Barrique” project, which are developed in parallel with the daily operations of the joiner’s workshop. We always try to diversify activity, so that our guys have to opportunity to live ever new experiences; in this way, we offer a lot of training, we expand the skills of each person, so that, once they leave the community, they can consider opening their own workshop or finding a qualified job. We are strongly dedicated to social inclusion, especially in times like these, where it is really difficult for young people to find a job or credit from banks. For this reason, we are creating micro-credit initiatives with banks. We cooperate with Scm Group not only to re-include our guys through the “channels” and the personal contacts of Scm Group people supporting us, but also to offer school programs inside the community. When possible – again in collaboration with Scm and some banking institutes – we are supporting the creation of small teams for small businesses or small cooperatives, helping guys find their way back into society and offering a network of job opportunities. It’s all about offering an opportunity based on skills acquired with tools that can help capable people build something of their own».

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Let’s go back to your relationship with Scm Group...

«They have been supporting the development of our joiner’s workshop since its creation. We have always had and still have only Scm machines, model “Premium”. The company’s support, especially from the Aureli family, was essential for us. The relationship is still very close and not limited to supplies and financial aids. Together, we are developing major projects like the “Barrique” I mentioned before. We leverage every opportunity, we are an open community, always pursuing the goal of a self-sufficient organization and an experience that can be replicated. For anyone who might need, not only in Italy...».

How did you get to the “Barrique” project?

«The “Barrique” project was launched in 2012 with Maurizio and Davide Riva. I had seen the “Briccole di Venezia” project and I asked: can we do the same with the barrique casks we use to age our wine? And so it started: in April 2012 we had a great success at the Furniture Show in Milan; we have involved many wine producers who give us their reclaimed casks, and in a few weeks the products created with the “Barrique Project” will be touring in the United States (see box on page 00, editor’s note). Among the most fascinating projects, we are working with Bob Krieger, a world-class portrait photographer, for the production of special picture frames...».

Do you handle the entire cycle in your workshop?

«Yes, from roughing to finishing, the workshop has specific areas for sanding, primary operations, cutting to size, numerical control operations, decoration and painting/lacquering. All-round production and training. Our production of standard furniture uses “poor” materials, often recycled or low-cost; for instance, we use mdf panels to make items that are then “dressed” with handicraft decorations to create unique products. Most of our production is made with our own hands. That’s essential for us. We are craftsmen. The Scm machines we use are typical handicraft equipment, although they are no longer what they used to be in the past. We work each piece individually, we turn, carve, glue and sand manually. We touch wood, we cuddle it. We need passion. We are an expression of passion. Without passion for all this, San Patrignano would have never existed...».

from Xylon
www.xylon.it



special
design

barrique.sanpatrignano.org

CASKS US TOUR FOR “LE BOTTI RINASCONO A SANPATRIGNANO”

Scm Group is the top partner of the event featuring furniture and items made from reclaimed casks used to age the wine made in San Patrignano.

From San Patrignano to the United States, a long roadshow from May to October 2013, traveling through Boston, New York, Washington, Charleston, Miami, Houston, Chicago and Atlanta. A journey that tells the story of just a small portion of what happens every day in this community, the biggest in Europe, which has been welcoming young men and women with problems of drugs and social marginalization for thirty years. An organization that needs no introduction, where attention to people, work and community leads to the re-birth of thousands of boys and girls, men and women. Just like the barrique wood is re-born...

98

Two activities of the community – excellent winemaking and a joiner’s workshop equipped with “Premium” machines by **Scm Group** in Rimini – resulted into a project called “**Le botti rinascono a San Patrignano**”. Using reclaimed casks where valuable San Patrignano wines have matured, the community created lamps, furniture, doors, toys, armchairs, chairs, small tables...

The items were designed by about thirty famous designers, including Claudio Bellini, Luca Scacchetti, Pierluigi Cerri, Michele De Lucchi, Aldo Cibic, Terry Dwan, Elio Fiorucci, chef Gualtiero Marchesi, Karim Rashid, Matteo Thun, Aldo Spinelli, Angela Missoni, Paola Navone, Paolo Pininfarina and another chef, Marc Sadler. Without forgetting **Maurizio and Davide Riva** of Riva1920 from Cantù (Como), who have been supporting this project since its official launch at the Milan Saloni in April 2012, recording great success among audience and critics.

The long US tour will also draw attention to Italy in general. That’s why the “Barrique project” was listed by the Foreign Affair Ministry among official initiatives celebrating 2013 as the “**year of Italian culture**” in the States, with a calendar including over one hundred cultural events and initiatives.

Scm Group will be the top partner, together with sponsors like **Italy-America Chamber of Commerce** in New York, **Ice** (the Italian agency for enterprise promotion and globalization), **Friends of San Patrignano** (a community founded in 2003 to help young Americans based on the same model of the original community), **Foundation for Italian Art and Culture** in New York; **Fondazione Bracco**, by the same-named pharmaceutical industry family; **Poltrona Frau**, an excellent brand in the production of seats and upholstered furniture; **Msc-Mediterranean Shipping Company**, a giant of maritime transport; **Aon** insurance and reinsurance group; **Federalimentare** and **Federvini**, complementing design with Italian taste, offering wine tasting experiences at each stage of the roadshow.

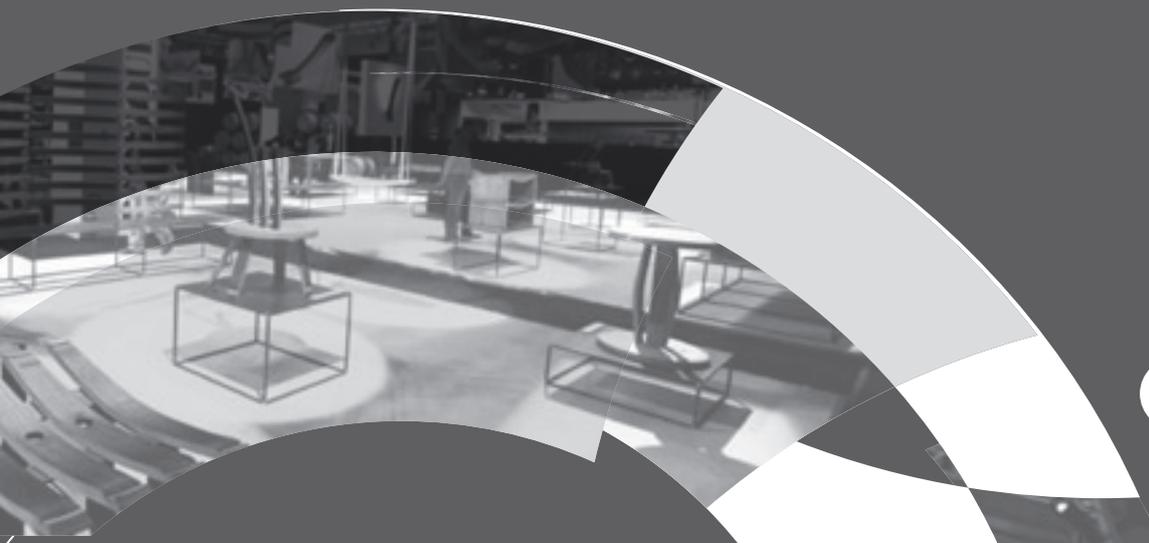




«We are honored to take part in this great adventure of San Patrignano and “made in Italy” in the United States», said **Alfredo Aureli**, general manager of Scm Group. «It’s an opportunity to testify our support and 30-year friendship with San Patrignano and their joiner’s workshop, where our machines are an established presence. But it is also a way to be close to the big and exciting world of design, to show what we believe in, our determination to provide tools that can turn a great idea into a great product. This is our mission: collaborate to make a dream, an idea come true. Improve life, make it more beautiful... a miracle that happens every day in San Patrignano! And I’m not talking just about furniture or wine, but people...».

TIMETABLE

7-8 may:	BOSTON	City Hall
18-20 may:	NEW YORK	Poltrona Frau
29-30 may:	WASHINGTON	Ambasciata d'Italia
6-7 june:	CHARLESTON	US Custom House
13-14 june:	MIAMI	Showroom Poltrona Frau
20-21 june:	HOUSTON	Showroom Internum
30 june-2 july:	NEW YORK	Fancy Food c/o Jacob K. Javits Convention Center
9-10 july:	CHICAGO	Field Museum
13 september-11 october:	ATLANTA	Moda



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i wood like

scm group at the 2013 milan trade fairs:

technology at the service of the future, for today's youngsters.

Huge success amongst the public, famous figures and specialised workers for **Scm Group** at the **Salone Internazionale del Mobile di Milano**. The biggest and most famous furniture and furnishings exhibition came to an end yesterday, after six days (9-14 April) of business, meetings, events and appointments that brought over 300,000 visitors to the site.

A great opportunity for woodworking technologies which, for the first time, were welcomed into the temple of design - recognition of their contribution with regards to both work and creativity. The intelligent setting for all this was the "**I Wood Like - Handmade & digital crafting**" project, developed by **FederlegnoArredo** (the branch of the Italian Manufacturers' Association that brings together firms working with wood and its derivatives), the **Culturalegno** association that spreads the culture of wood and its traditional, artisan and artistic transformation, and **Scm Group**. Three different organisations but with one single goal: to show young people that they can be their own boss, building real opportunities for their future even in the world of wood. As skilful inlayers and cabinet-makers, but also as "evolved artisans" who, with the aid of powerful and versatile but very user-friendly technologies, can transform both the wood and their own destiny.

An event that met with great success in the cultural, political and institutional world too: many famous figures visited the "I Wood Like" area, including the president of the Lombardy region **Roberto Maroni**, the mayor of Milan **Giuliano Pisapia**, the vice-president of the European Commission **Antonio Tajani**, the president of the Italian Manufacturers' Association **Giorgio Squinzi**, the president of the Maxxi museum of Rome **Giovanna Melandri**, the chairman of the Education, Training and Work Committee of the Lombardy Region **Valentina Aprea**, senator **Roberto Formigoni**, **Mariastella Gelmini** (ex minister of Education), not to mention well-known "archistars" and internationally renowned designers.

As well as **Roberto Snaidero** and **Giovanni De Ponti** (president and chief executive of FederlegnoArredo), there was also Scm Group president Giovanni Gemmani and co-owner Adriano Aureli to welcome the visitors.

A prestigious occasion for the Rimini group which, during the fair, demonstrated how a machining centre (an affordable investment for an artisan firm) can create a complex, stunning table like the "Vaulted table" designed by the London studio Bloomlab.

An initiative that is not only ethics and culture, but also aims to underline what the group strongly believes in - that Italy's true wealth lies in knowledge, training, and investment in the potential of the manufacturing sector. *Thanks to our culture, our creativity, and our precious and unbeatable artisan traditions* – said Alfredo Aureli, group managing director, summing up the initiative – *today's youngsters can depend on excellent professional prospects in Italy. A path that will be even more fruitful if we can bring them closer to numeric control machines and the most innovative technologies, showing them how quick and easy they are to use, and how they can ensure production with competitive costs.*

It's been shown that technology reduces labour's impact on the cost of a good by 6% - an irrelevant variable that brings the concept of competitiveness back into perspective and makes the advantages of delocalisation far less significant; a further chance to be "your own boss".

I WOOD
LIKE



« The organizers of I WOOD LIKE... hope to prove to the young designers attending the Salone del Mobile that in order to turn a brilliant idea into a design object using leading-edge technology, the first step is to acquire an appreciation of the raw material and its potential, and then to employ manual woodworking techniques to craft the object that will eventually be machine-made ».

Alfredo Aureli
CEO Scm Group

i wood like what is it?

The project, created jointly by **FederlegnoArredo, Scm Group and Culturalegno**, will be staged during the 2013 i Saloni show in Milan, and aims to generate insights into the way wood is processed, from the raw material to the finished product or object.

Materials, timbers, products, design objects and examples of the craftsman and artisan's skills will be on display alongside numerical-control industrial technologies.

The organizers of I WOOD LIKE... hope to prove to the young designers attending the Salone del Mobile that in order to turn a brilliant idea into a design object using leading-edge technology, the first step is to acquire an appreciation of the raw material and its potential, and then to employ manual woodworking techniques to craft the object that will eventually be machine-made.

The project is made up of four sections "depicting" the various steps involved in creating a design object out of wood: Planning, Prototyping, Programming and Production.

Visitors will be able to watch wood being worked, while a well known "design icon" is manufactured before their very eyes at the venue (the Vaulted Table by Bloomlab Architecture & Design, London). The choice is a particularly relevant one in terms of the design process, as it entails several different prototyping steps (joinery, turning, carving), and illustrates some of the complexities of machine-working.

Various types of wood will be on display, and visitors will have a chance to touch the different species of wood, interact with the master craftsmen on hand, and watch them demonstrate their skills in carving, turning and transforming wood, wielding specialist tools and sharing their passion for wood.

Also on display will be a numerical-control processing centre installed and operated by SCM Group (**Tech Z5**). A simulated carpentry unit will show how leading edge technology can turn a great idea into a brilliant design object within the space of hours, achieving consistently flawless quality and accommodating unconstrained creativity.

federlegnoarredo

The heart and soul of the Italia wood and furniture industry.

It has been the embodiment of Italy's woodworking and furniture-making expertise since 1945. Its mission is to consistently support the growth of Italian businesses and be the ambassadors of tasteful Italian interior design throughout the world. FederlegnoArredo represents the entire wood and furniture sector, from the raw material to finished product, in Italy and abroad. Its headquarters are located in Milan, and they also operate out of our offices in Rome and Brussels.

culturalegno

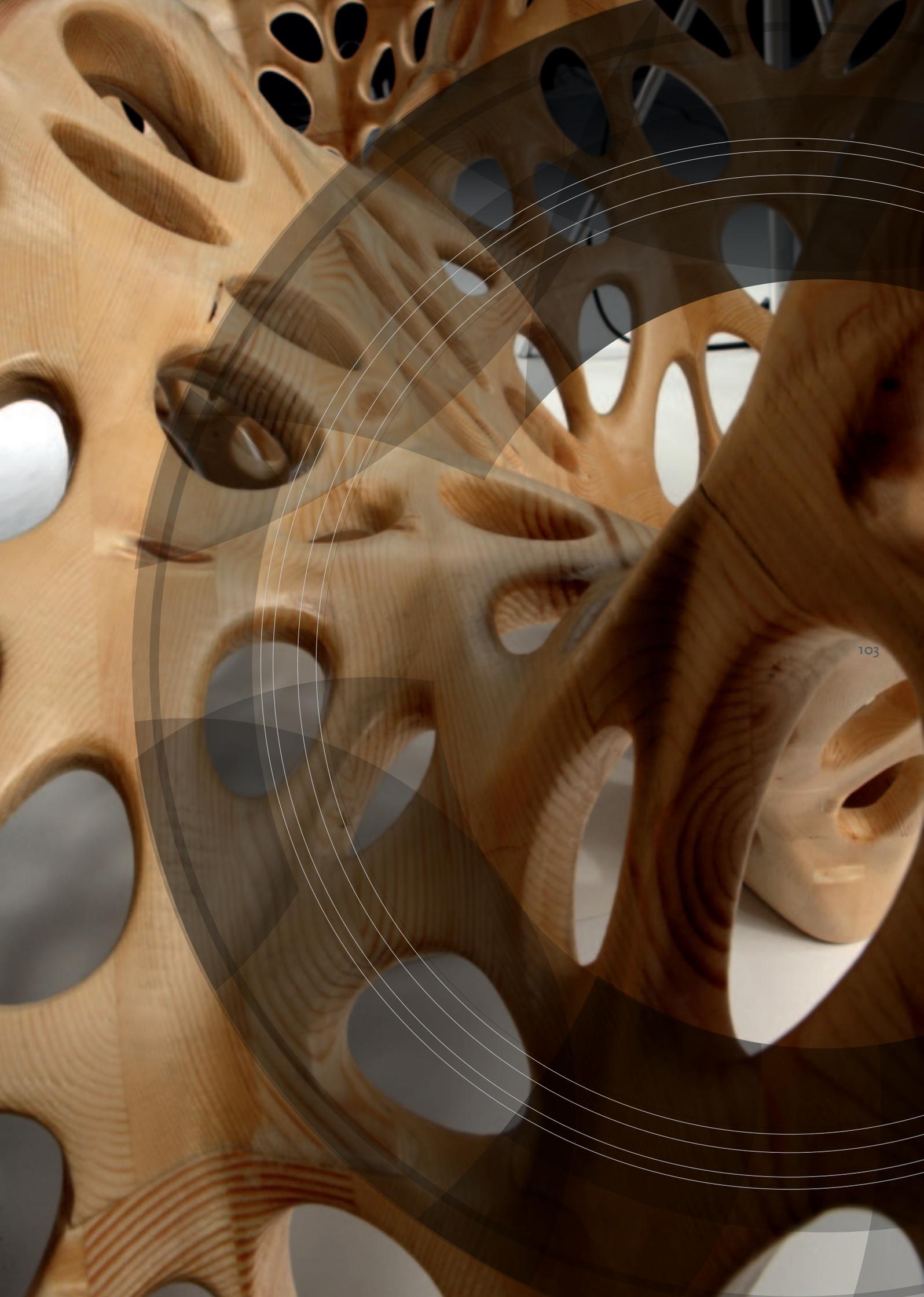
Wood culture association.

It shares an interest in learning more about wood in terms of its cultural, historical and architectural relevance, and its place in the natural environment. The Wood Centre situated in San Giovanni al Natisone (near Udine) stores a collection of over a thousand different unique or hard-to-find wood species (xyloteca lignamundi).

"Slow wood" started out as an one-off event, but has now become the driving force behind Culturalegno: it supports and encourages anyone involved in creating, manufacturing, processing and distributing wood.

I WOOD LIKE will also be taking part in the ICFF (International Contemporary Furniture Fair) - the main event of New York Design Week - from 18th to 21st May 2013.

Talks are under way to define a presence at the Design Weeks of Moscow, Peking and South Korea, and at 100% Design in Singapore.



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designwww.bloomlab.co.uk<http://vimeo.com/63618828>

vaulted table

3 months with traditional methods

1 week with scmgroupt technology

The VaultedTable is an exploration towards creating new structural and form languages using timber combined with computational design and digital fabrication techniques.

The project began with the production of the main volume creating a shape which is dynamically relaxed so to reduce structural stresses and making it appropriate for being made out of timber.

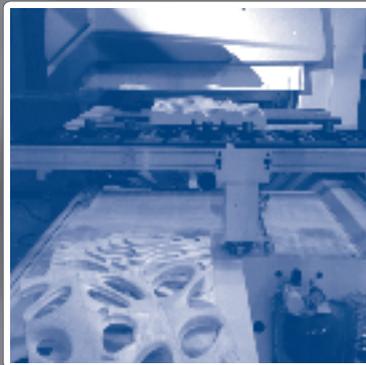
Although the form looks like a hand modeled sculpture the table structure is based on dynamic relaxation method (form-finding) where the aim is to find a geometry where all forces are in equilibrium.

In order to enhance the material properties and the space configuration has been applied a series of apertures deriving from a leaf pattern and parametrically controlled re-configuring the weight and volume dynamically.

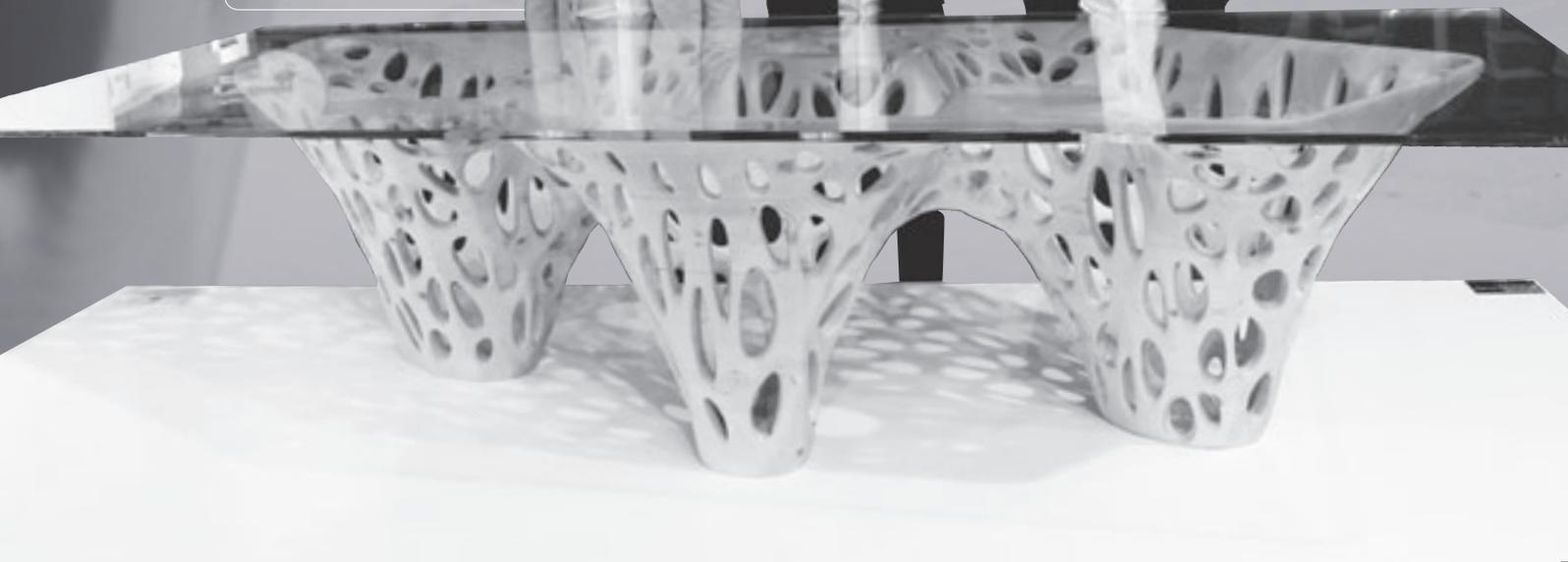
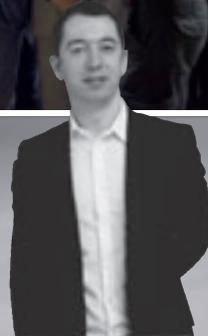
The VaultedTable was produced on a 5-axis SCM router with dedicated custom software optimizing the tool-path generation to remove the most material with the least effort. The total machining time to was calculated around **1 week** utilizing **2 cubic meters of timber** for a production of a total finished surface of **12 square meters**.

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BLOOMLAB staff
From left:
Piermatteo Perazzini
Federico Rossi
Fabio Fabbri





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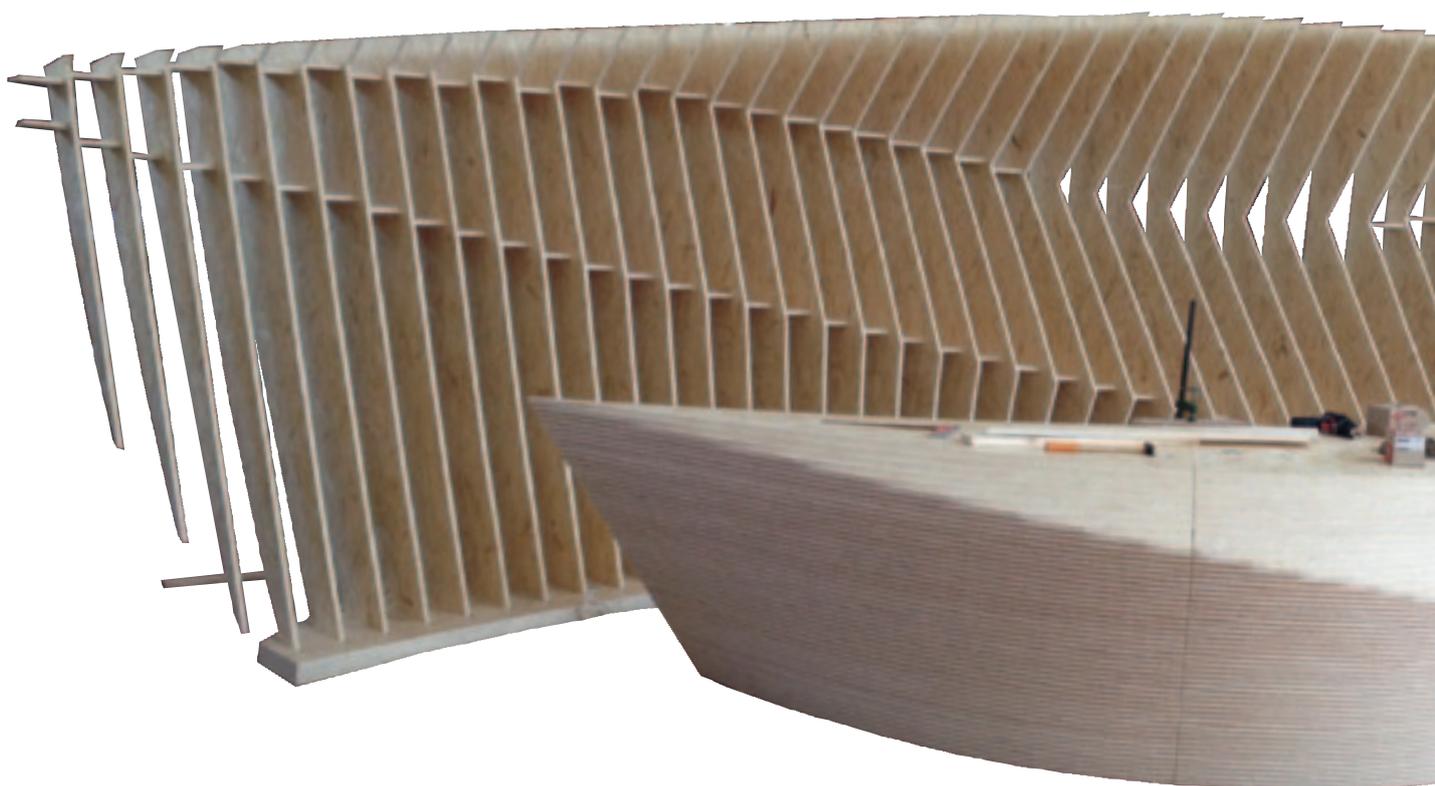
bloomlab

BLOOMLAB | architecture & design was established in 2011 in London.

The practice operates in the field of contemporary architecture, urban planning, interior and product design; working with private, corporate and public clients.

BLOOMLAB strives to create outstanding projects, to enjoy what we do and to work profitably and sustainably. We aim to combine a radical design philosophy with digital design processes to produce beautifully crafted design that is a coherent expression of the social, cultural, economic and environmental conditions that are specific to each project.

The founding partners of BLOOMLAB are **Federico Rossi**, **Fabio Fabbri** and **Pier Matteo Perazzini**.



frequency wall

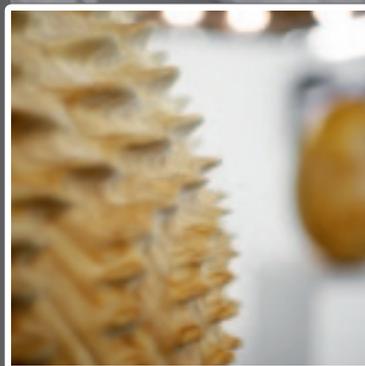
This is the installation on show at the SCM Group stand for Ligna: an architectural work in **poplar OSB** by **IPAN** (an Italian company that is the only one producing it in Europe).

The name of the structure is inspired by the frequency of the sound waves generated by the noise of cutters as they work the wood, perfectly reproduced by the fascinating assembly of over 500 different shapes. A work made possible by an Scm Tech boring/milling machine.

“The shapes that make up the Frequency Wall were assembled by **Naldini Arredamenti**, a Forlì company linked to SCM Group by a long, fruitful collaboration - the latest step being the investment in a machining centre to complete the 100% SCM range of machines.

easter eggs

Eggs designed by BLOOMLAB, using cedar wood from Riva 1920. The machining was performed with SCM Group 6-axis technology. Displayed at the Technodomus 2012 fair in Rimini.





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design

www.pininfarina.it

www.riva1920.it

www.alphacam.com

pininfarina cambiano & briccole di venezia

A harmonious link between design and technology

Modelled on the pure, cutting edge design of the Pininfarina Cambiano, the Briccole, wooden posts used for mooring in the Venetian lagoon, are transformed by Riva 1920 using the technology of the Scm Group and Alphacam software into a perfect sculpture and a symbol of Italian excellence worldwide.

cambiano, luxury for sustainable mobility

With the Cambiano, Pininfarina proposes an electric luxury sports saloon concept car. Elegant and sporty, refined and comfortable, the Cambiano combines pure, cutting edge design with engineering research. The Cambiano sets a new benchmark for environmental sustainability in the luxury car sector and boasts electric traction which amounts to virtually zero emissions in the city cycle and a level of electric autonomy that is higher than that currently available on the market. Perfect integration between styling and engineering has led to a plug-in extended-range electric saloon car that combines high performance with the usability and comfort of a luxury car. It has also been designed with a focus on the environment both in the power train and the choice of materials: this is the case with the interior made using recycled wood from the briccole of Venice.

scm group: superior technology, for simplifying complex ideas and turning them into reality

For the Scm Group, the wood sculpture that reproduces the Pininfarina Cambiano represents a passion for Italian creativity to which it adds its own superior technology. With scientific precision, this technology transforms creativity into masterpieces and offers competitive advantages that last to whoever chooses the Scm Group.

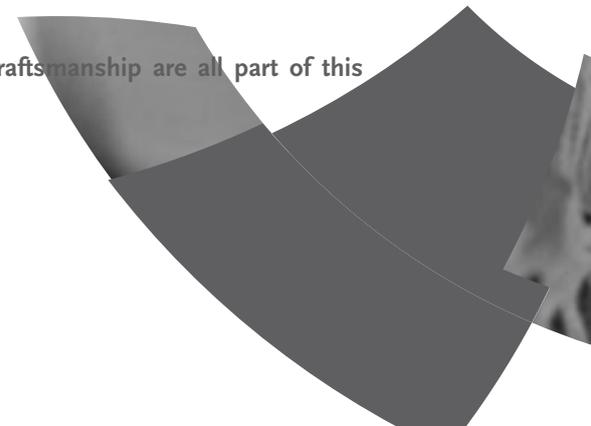
Today, producing technology means being aware of the needs and work methods of customers. It means knowing how to design and build complete factories to create the product that the customer wants to put onto the market. It means working in close contact with designers and architects. This is because the ultimate aim of technology is to simplify new ideas and turn them into reality.

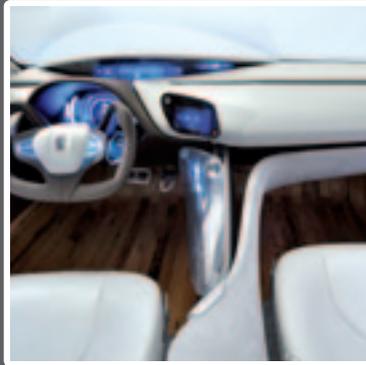
riva 1920: passion and technology serving environmental sustainability

Technology and craftsmanship. For us creating the Pininfarina Cambiano was another opportunity to reassert our passion for wood and design which has helped us to grow by developing a project which was unusual for us and demanding but unique and inspiring.

In this project, the Briccole of Venice are protagonists along with the curvy, elegant lines of the Cambiano. The Cambiano project seals our alliance with Pininfarina through the environmental sustainability of the bricola (recycled wood) and the engine of this limited production electric-powered model. This work has been made possible through the advanced technology we have in our company, technology produced by Scm Group and AlphaCAM-LICOM SYSTEMS and used to create the Cambiano on a scale of 1:1 entirely in wood.

Environmental sustainability, design, cutting edge technology and craftsmanship are all part of this project that enhances the creativity of this team of Italian companies..







special
software

scmgroup software

**we make
it simple!**

For some time now, software has become part of the daily life of most people, from the professional context to spare time. For computers, smartphones and automations of every type (from a simple gate to the most complex industrial system), software comes in different guises but with one common aim: **to help users carry out complex tasks in a simple, intuitive way.**

In recent years, SCM Group has invested a great deal in the revision of the software applications used for the various machine ranges, from the versatile NC machining centres to the high-output production lines for door and window frames.

The result is a suite of programs that are continuously evolving to guarantee the full flexibility of the machine functions, from programming (based on new standards in line with the ISO international regulations) to the operating use of those functions (there are even applications that guide the unskilled operator) and the control of the automation (increasingly safe and optimised, guaranteeing excellent performance).

In the field of machining centres, the strength lies in **Xilog Maestro** - the new programming user interface developed in the Windows® environment. It's modern and efficient, with a clear, intuitive, "Office" style layout, powerful CAD/CAM functions (even for those customers with little experience of machining centres), and extreme user-friendliness.

Alongside this, there are packages for specific processes and for managing the frame (doors and windows) and cabinet (furniture items and similar), as well as the new three-dimensional simulation environment with its realistic representation of the machine and machine behaviour.

At the same time, the world of lines also has a new, flexible and practical supervisor that's ideal for creating an interface with the various types of SCM Group machine.

The application software packages have different features, but they all have a **familiar, similar look** to give the customer a sense of one single, huge, rational set of functions offered by SCM Group.



Marco Montanari
software project manager

xilog maestro

simple, intuitive, immediate

This software for CNC machining centres makes design, programming and production easier.

preview

cuts production time and calculates productivity in advance

3-D simulation software that previews, with a detailed, consistent rendering, the element to be created on the CNC machining centre by checking the tool paths and calculating productivity in advance.

Professor Pappagallo

the personal assistant for 24-hour management of your CNC machining centre

it is a software application that can be used by anyone, even those with no experience of CNC machining centres, to execute a work program and diagnose and resolve errors or problems by simply touching the screen and giving a few voice commands.

watch

full integration, high level performance

This is a man machine interface software application designed for the use of complex automation processes that centralise and simplify system management.



scmgroup leader in
production process and technology

 **scm**
 **minimax**
 **scm tecmatic**

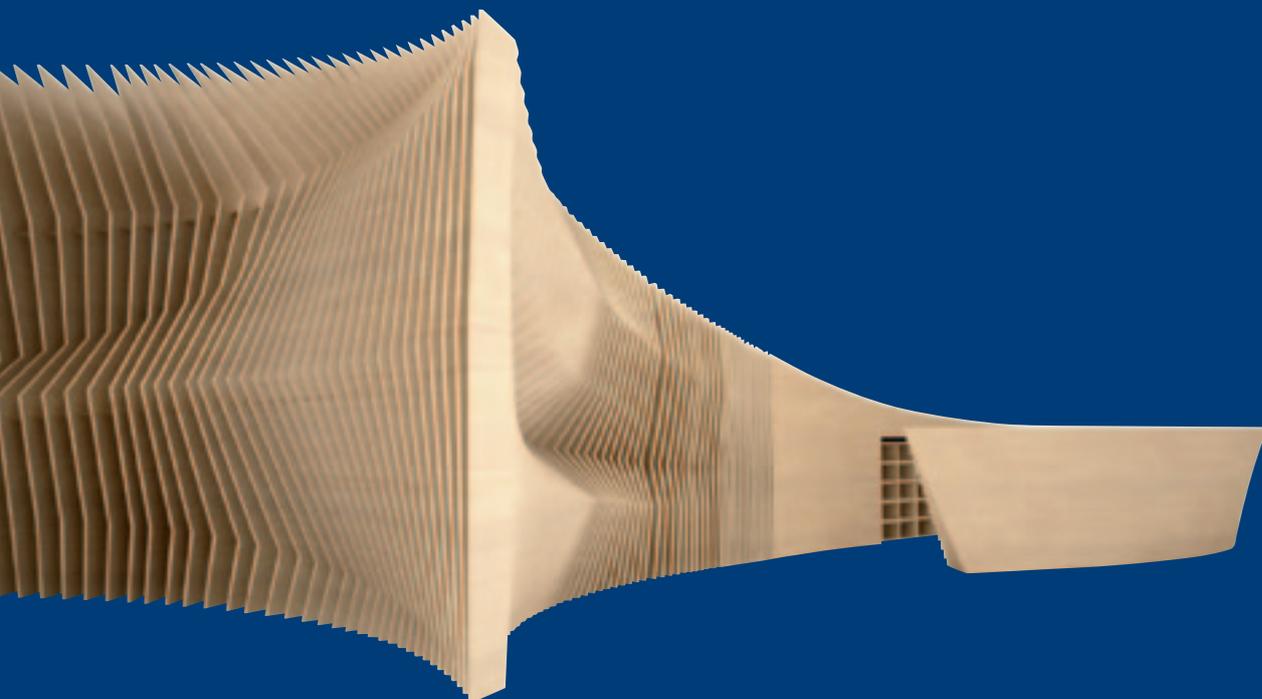
 **scm**
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waterjet technology
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frequency wall

designed by **bloomlab**
manufactured in **Italy** with **tech Z5**
by **naldini arredamenti, Forlì**
presented at **Ligna 2013**



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