scmgroup leader in
production process and technology

scmgroup

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editorial

technodomus
we have added an axis for perfection

This publication continues our tradition of showcasing our projects, our commitment and our desire for the future. We want to tell you some stories about the Scm Group, and above all some stories about us and our customers. **Stories of partnerships and a quest for excellence in Italy and the world.**

The Scm Group has opened **a new season**, and taken another step forward in its mission lasting more than fifty years as a supplier of technologies for all woodworking processes - throughout the world. We are a global partner, with a comprehensive product range and extensive presence wherever woodworking takes place. **Our success is built on the strength of our unfailing commitment.**

Producing technology nowadays means knowing our customers' requirements and ways of working, understanding their needs, working to make sure they can choose what to do and how to do it. In the simplest way possible. That means confirming our vocation for designing and building large systems; complete factories for creating the product that our customer wants to offer the market. And, as we'll soon be able to demonstrate once again, it also means working in close contact with designers, architects and engineers, because the ultimate aim of technology is to **turn new ideas into reality** and give our customers a competitive edge. In a simple way.

the most advanced technology in the simplest way possible: professor pappagallo
Simplicity itself. Because "complex" doesn't mean "complicated". Our task is to make what is naturally complex easy. That's why we've asked **Professor Pappagallo** to help us - the software application that made its début at the Holz-Handwerk trade show in Nuremberg. The Professor personifies our commitment to achieving a seamless relationship between the operator and technology, even with the most complex of processes.
The software application offers outstanding assistance for production and for checking and diagnosing problems, with just a few touch-screen or vocal commands. A work companion, teacher and 24-hour assistant to make even the most complicated operation easy!

scm group leader in production processes
It's all about stories. In some of the next stories, you can find out how well we have lived through developments and pursued a growth strategy. We are suppliers of solutions and today, more than ever, we can boast a **"leadership position in production processes"**. Through the expertise of the Scm Group Engineering division, and with an unbeatable range of machines and solutions, plus close work with our reference partners, we have set the standard for some specific machining operations for customers who are looking for complete, **highly automated lines and integrated technological solutions for main production processes in the wood industry and complementary sectors.**
This vocation will increasingly use a range of interactive tools and very clear diagrams, as well as 3D rendering, films and testimonials with specific formats for trade shows and a special section on our

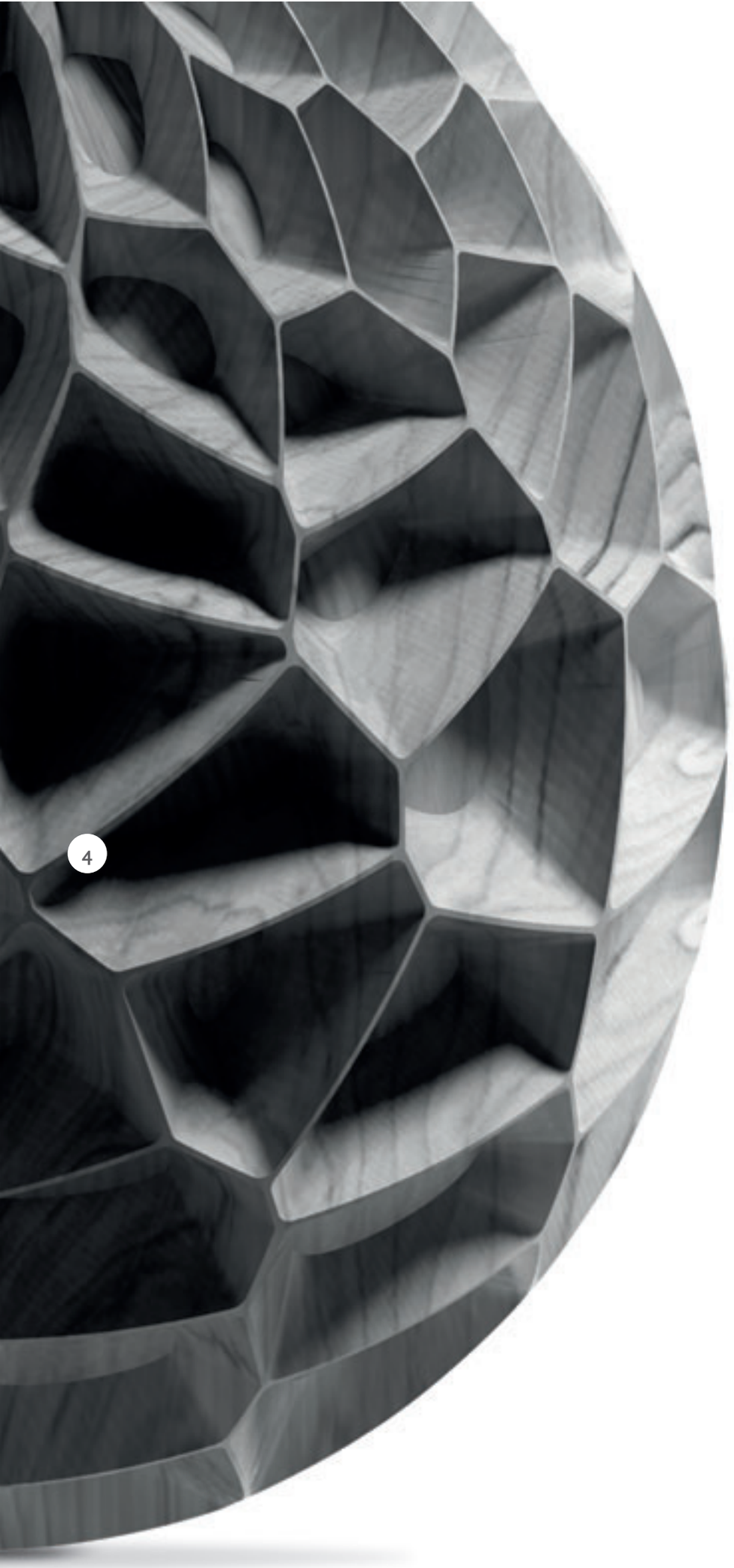
website - to clearly and extensively explain our ability to devise “turnkey” systems and create the **“ ideal factory”** for any kind of end product.
An ideal factory - where productivity parameters can be tested thanks to **powerful simulation instruments**, developed to meet our customers needs.

technological solutions to turn ideas into reality: technology and design

Lastly, we report on an aspect we strongly believe in: a closer relationship with the **world of design**. Our machines have always helped turn ideas into reality. Whether the idea is an item of furniture, stairs, an object, a roof or a boat, our technology will turn design into something that can be used, experienced and tried and tested. We design and build increasingly sophisticated technologies – and the **sixth axis** of many of our machines is concrete proof – because the creativity, genius and imagination of architects and designers should know no bounds. We must free designers from all limits, guaranteeing them the best technology to create what they have imagined. We want to be driven by a vision of the end product, we want to be the intelligent technology behind that product.
We will pursue this mission with highly prestigious partnerships in the wood processing industry and in other sectors. We will be partnering Pinifarina and Riva 1920, because the Italian furniture makers Riva will be using “briccola” wood - oak posts from the Venice Lagoon - processed using our machining centres, to make the “flooring” for the “Cambiano”, the new concept car designed by the Italian design and engineering firm Pinifarina.
We shall be at the **Milan Salone del Mobile (Furnishing Show)**, taking part in the competition to “reuse” the barrique casks that once held wine produced by the **San Patrignano** community. More than two thousand designers from around the world will be taking part in the competition, which will also feature a “special section”, with projects by some thirty “archistars” – as today’s world famous architects and designers are known - designed in the carpentry workshops at San Patrignano which have always used our machines, in a special ethical relationship we are honoured to be engaged in.

Stories. They might just seem like stories, but at the Scm Group we believe in them, we experience them each day, with a**n intensity and precision, combining passion**, **technology** and **performance.**

Raphael Prati
Head of Communications Scm Group



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window and **solid wooden door**

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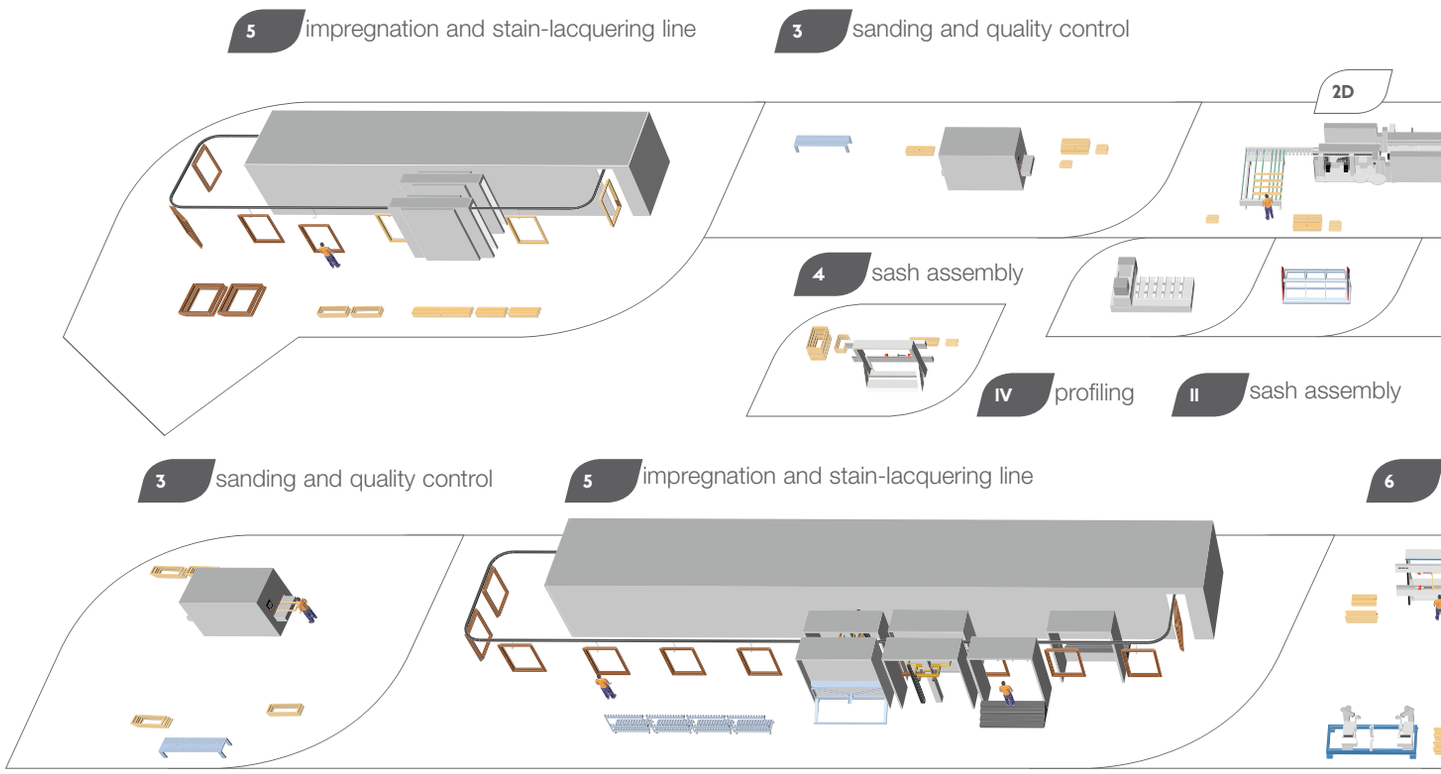
See the interactive section on **scmgroup.com**



window
production process

1. **selected partners** cross cutting
2. **scm - celaschi** window and door 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 - robopac** packaging

raised panel door

scm moulding

selected partners assembly

dmc sanding and quality control

scm profiling

solid wooden door
production process

frame

I I. **selected partners** cross cutting

II 2. **scm - celaschi** window and door cnc system

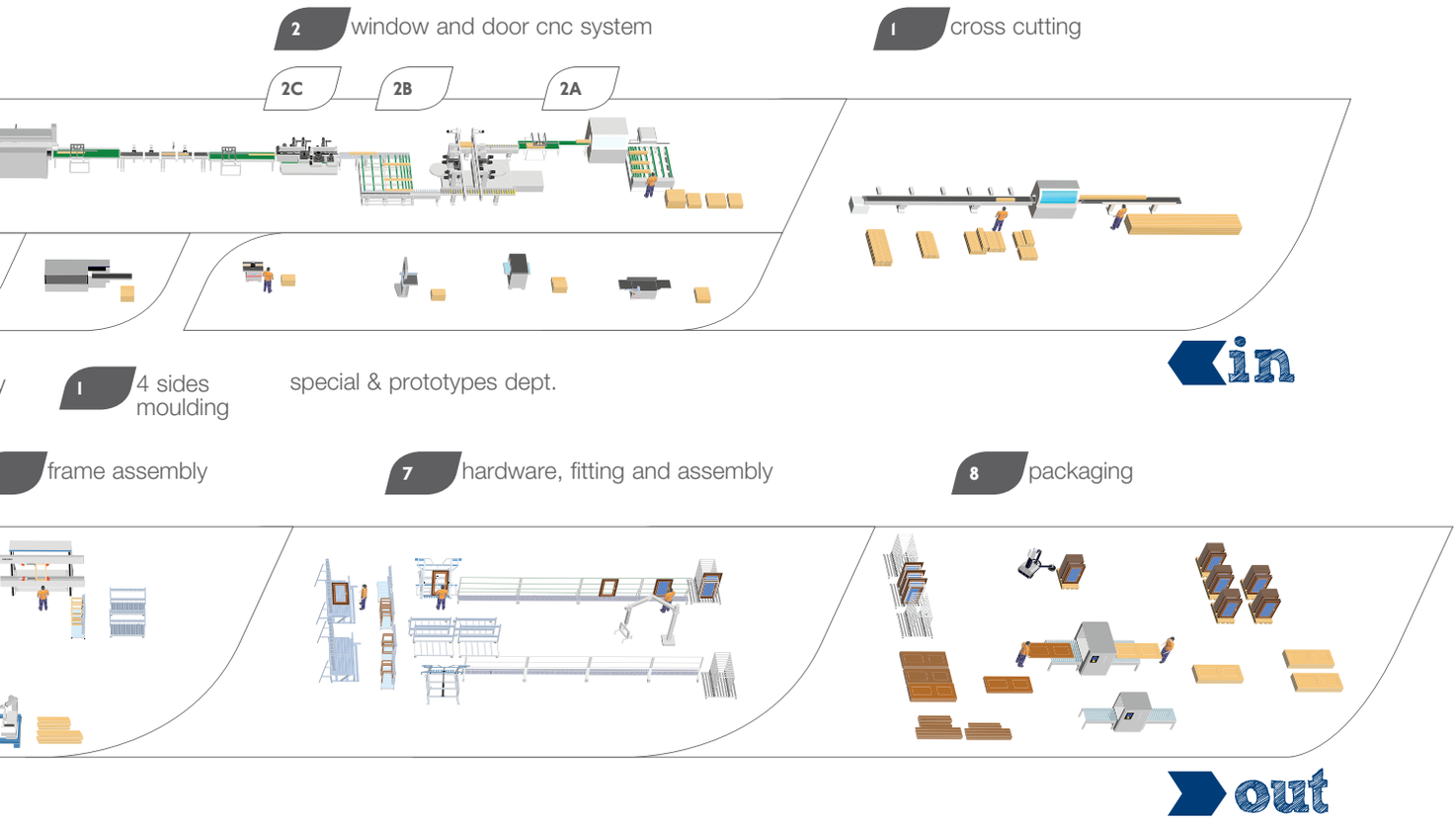
3 3. **dmc** sanding and quality control

IV 4. **sergiani** assembly

5. **superfici** impregnation and stain-lacquering line

7. **selected partners** door assembly

8. **cpc - robopac** packaging



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:
- new working centre **SCM Domino**

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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technology
integrated centre
for windows and doors

domino

All the Technology for outstanding door and window frame production

Machining quality, versatility and flexibility.
Competitive production rates with limited investment

A solution that brings together market trends and manufacturers' needs

The door and window frame market is paying increasing attention to the issues of **soundproofing, heat insulation and water resistance.** This means improving the qualitative level of the windows, increasing the thickness of the glass and door (from the most common 68mm to 92mm and more). At the same time, the contact surface between the wood and the outside environment has to be reduced, so the window sections are becoming narrower and narrower.

Today's market is more extensive and diversified than in the past, so it's essential to offer a wide range of products that can adapt to the various shapes, joint types, and frame size and type, to satisfy small and widely varying job orders.

The strategic points underlying the production system are, however, ease of use (to avoid the need for highly skilled operators), reduced work space, the integration of machining operations via fully automatic cycles, reduced noise and dust levels and, in general, energy savings.

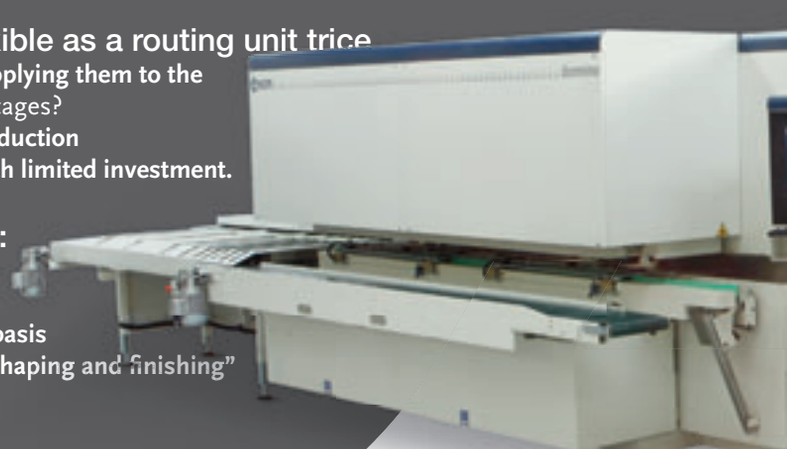
The new DOMINO is the solution for producing any type of article in any quantity, without jeopardising costs or delivery times.

When the angular machine comes into its own

In Today, investing to increase competitiveness means a growing interest in highly flexible solutions that can do a bit of everything. To reach this goal, the risk is that little attention is paid to production rates (not a priority at this time) or the level of investment, as long as the result is ensured. And it's in this context that the angular machine comes into its own, with its guarantee of production efficiency.

It produces like a system, but it's as flexible as a routing unit trice

Domino uses the typical routing unit technologies, applying them to the crossing concept of the angular machine. The advantages?
It allows a high degree of flexibility and increased production rates when compared with cell-type solutions, but with limited investment.



Domino is the winning solution because:

- **it's ideal for all machining operations,** regardless of the construction concept, type of joint, type of section, etc. It allows you to **produce on the basis of batches or units**, even with **"splitting"** or **"rough-shaping and finishing"** type concepts, without penalising productivity.

new!



Production times are minimised, even when less skilled operators are employed
- **it ensures production rates of up to 2 pieces/min,** including the secondary machining operations (bores for tilting windows, bores for handles, release seat, glazing bead edge trimming at 45°, etc.)
- **maximum integration of the machining operations:** systems of piece accumulation (buffer), shearing, planing, recovery of additional glazing beads, super-finish with knife or belt, piece marking, etc.

THE STRENGTHS OF THE DOMINO TECHNOLOGY:

- **"Colibrì" electronic anti-splintering device**

Splintering is automatically eliminated during the tenoning phase, regardless of the type of tenon and the shape of the piece. The device produces an even finish, whatever the type of wood essence, quantity of pieces machined, or number of tools.
It avoids any splintering on pieces that have already been formed (or are waiting to be formed), as a result of minor maintenance interventions.

- **Tool-holder shafts with HSK 85S coupling and automatic tool change**

The HSK 85S coupling ensures top performance levels in terms of finish quality, removals, ease of use, and negligible downtimes, whatever the number and diameter of the tools.

- **5-AXIS technology with HSK 63E coupling**

The 5-axis electrospindle can carry out any machining operation on the piece without the need for commercial operating heads, just like in a routing unit. **The piece is finished and ready to use.**

case history
linea system 8C

internorm

Between wood, plastics and aluminum.

A giant producing 900 thousand doors and windows annually, with a significant portion of production entrusted to an effective line by Scm Group.

1,800 employees, 330 of whom in the Lannach site in Styria, where wood-aluminum windows are manufactured; the others are in Traun (plastic and aluminum windows) and Sarleinsbach (Europe's most modern plastic window factory). This is just one of many figures we will mention to give you an idea of what **Internorm** is today, an Austrian giant that produced some 900 **thousand doors and window** in 2012, with 305 million Euro revenues from sales in Austria and 54 percent export to Germany, Switzerland, Italy, France, Eastern Europe and the United Kingdom.
It is interesting noticing that, while 2010 sales in Germany amounted to 52 million Euros, Italy was a significant market, with over 40 million Euro revenues in the same period, versus 30 in Switzerland. So, a brand that has much to say even in our country...

Founded in 1931 by **Eduard Klinger Senior,** after over eighty years Internorm is still controlled by the third generation of the family, holding 100 percent of stocks. The protagonists of this story are three: Anette Klinger, Christian Klinger and Stephan Kubinger. We set out to discover this company with **Wolfgang Leitner,** Lannach factory manager.
«We manufacture doors, windows and entrance doors», he tells. «The materials that distinguishes our business is plastics:: approximately 80 percent of our production is made of Pvc, versus 16 percent of wood/aluminum and 4 percent of aluminum. The window business is going through an interesting evolution, with a focus on high-insulation products with integrated solar protection systems. On the contrary, windows with conspicuous solid wood profiles are disappearing, as customers prefer to see only glass on the outside, a smooth facade, with no edges or boundaries. In doors, we are recording strong growth in sliding elements, which certainly enhance the visual impact of environments». Especially for windows, the buzz word is efficiency, insulating capacity, sustainability of materials... ***what is Internorm doing in this respect?*** *«In our wood-aluminum range, we exclusively produce innovative high-insulation windows, using wood from sustainable cultivations. By virtue of their insulating construction and glazing, our window systems are increasingly used in passive houses. I can tell you that our products give a substantial contribution to energy saving and, consequently, to the reduction of carbon dioxide».*

Let's talk about technology: what role does it play in your organization?
«The importance of numerical control solutions has increased exponentially. These solutions are inevitable if you want to stick to ever narrower tolerances and deploy production cycles based on maximum flexibility. These are two key aspects, plus the possibility to use high-performance plants and machines, which is vital for the constant expansion of our business».

Mr. Leitner, what's your favorite "construction philosophy"?
«You might call it a "mixed system", which I think is very popular among door and window manufacturers. For the construction of standard windows, we use highly automated lines, while we rely on stand-alone numerical control working centers for special products. In this respect, I can tell you we have re-cently invested in Italian technology, buying a pro-duction line from Scm Group that provides for good productivity in terms of pieces on one side, and high working versatility on the other. On this plant, with a sequence of machining stages, we execute all standard operations, such as cross and longitudinal profiling, and all specific processes for special windows, using two **"Fleximat"** *working centers which can carry out drilling and milling operations on all workpiece faces. This is a complex process that involves about ten machines working concurrently, plus handling equipment, fully responding to our needs».*

What do you mean?
«I mean we have a flexible and versatile line, which also responds to our future needs. All without impacting production rates, and fully achieving our targets».

by
Luca Rossetti

system 8c line by scm

The "System 8C" line by Scm is an integrated "batch one" solution for the production of wood-aluminum windows that executes planing on four faces, tenoning, milling and drilling, automated glass seal application, right-left profiling. It can achieve 2,200 pieces per eight-hour shift, which means about 180 complete windows. This requires only one employee for loading, one for unloading and, occasionally, one for control and supervision tasks.

Wolfgang Leitner,
Lannach factory director.

scm

housing wood components

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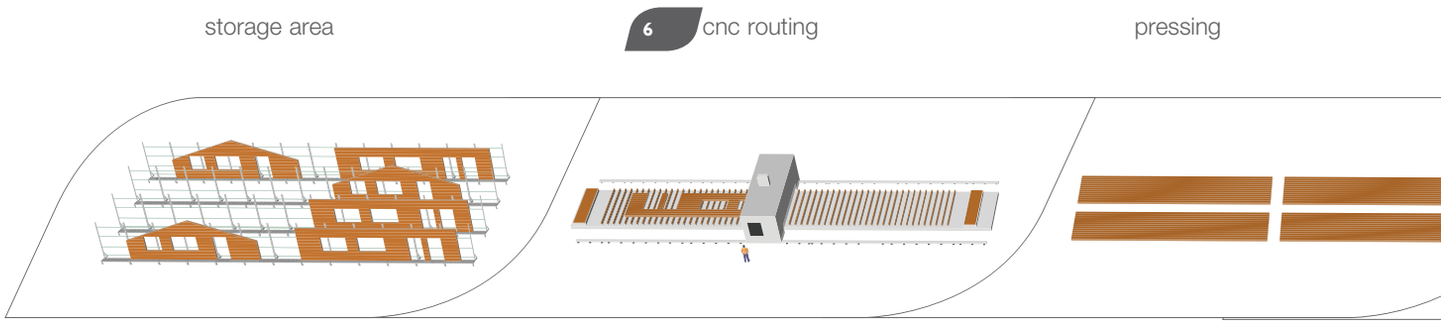
See the interactive section on **scmgroup.com**



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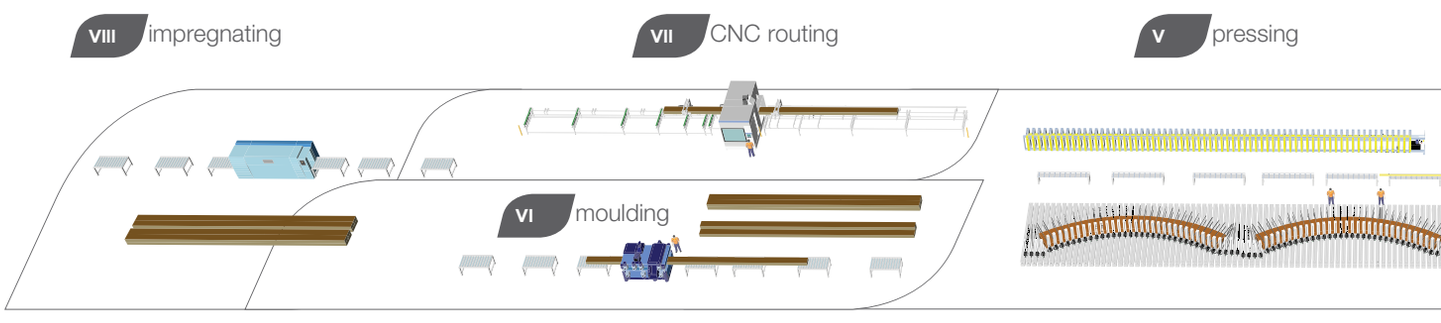


out

xlam
production process

I **selected partners**
cross cutting

2 **paoletti**
finger jointing

3 **paoletti**
moulding

4 **mahros** - **sag** - **paoletti**
X LAM composition

5 **sergiani**
pressing

6 **routech**
cnc routing

laminated beam
production process

I **selected partners**
cross cutting

II **paoletti**
finger jointin

III **paoletti**
moulding

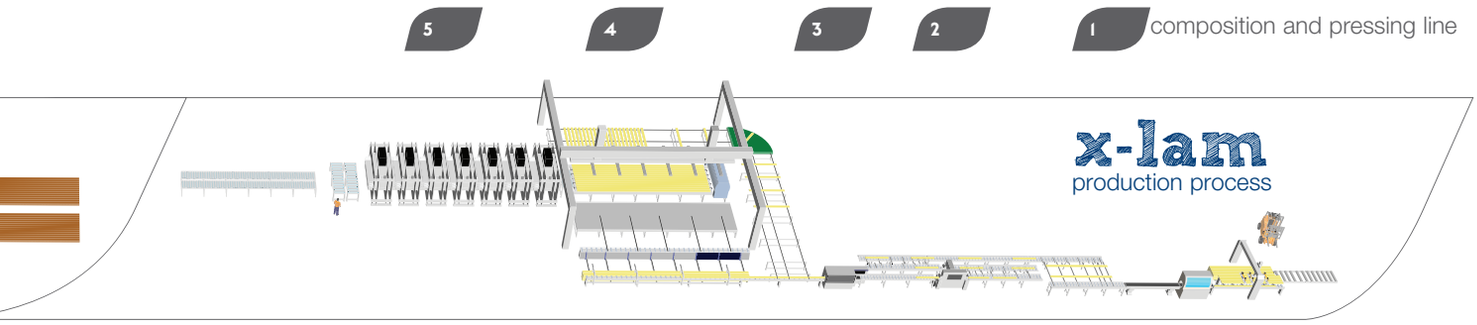
IV **paoletti**
glueing

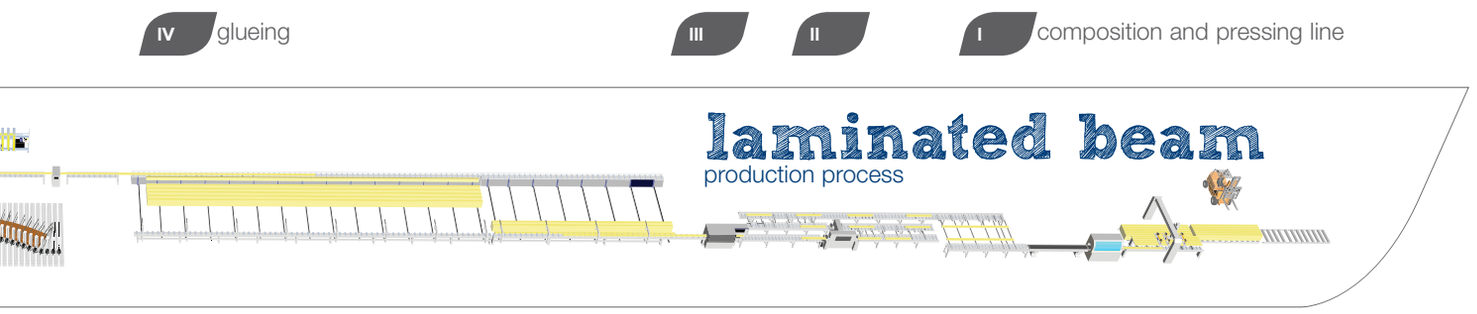
V **sergiani**
pressing

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

Machining centre for structural beams
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 concepts have been further developed in the new "Oikos".
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 **"auto-programming"**; 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

new!

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. 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.

routech

case history

technologies for X-Lam walls and structural beams

fratelli de infanti

Cutting and building a roof? As easy as «a-b-c».

Optimizing the use of material and the production process, making components for roofs and prefab houses ready to be assembled in the construction site. This results from skill and experience, as well as from the latest numerical control machines, as witnessed by Fratelli De Infanti in Ravascletto, in the province of Udine.

From the handicraft knowledge to the last generation of technology. This is the way to keep on growing in the name of competitiveness and quality: step by step, optimizing process and product resources. This is what **Fratelli De Infanti (www.deinfanti.com)** have done. The company is specializing in **boards, solid wood beams, bilam and curved glulam, wood paneling, matchboards and panels for joinery and construction.** It's an enterprise with a strong family management and extremely clear ideas. It has two sites: **a sawmill** in Ravascletto and a factory in Paluzza, in the province of Udine, for the **production of roofs, woodstructures and houses** such as turnkey block haus.

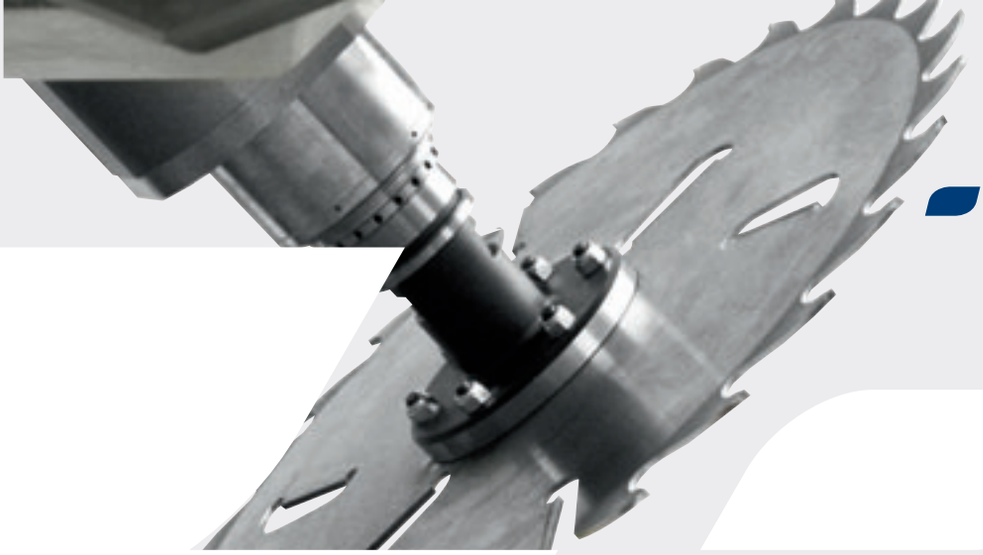
«In 1977 we added a new hall to the factory in Ravascletto» said Gianni De Infanti. «Today we produce from 8 to 10 thousand cubic meters per year of sawnwood; the sawmill, besides supplying wood to our joinery, also feeds the production of carpentry.
The new factory in Paluzza was an important step: for a logging company, it is not a natural choice to introduce also secondary operations with leadingedge equipment. It's a significant step...».

With the second production site, the company put the accent on the need of acquiring the most innovative technology, from the production of **bilam and glulam beams.** For this transition, the three brothers have invested resources, energy and all the time required to examine the most suitable solutions and build a network of partnerships and collaborations with technical experts and engineers who can support the development of the production chain.

*«In 2006, we had about enough and we decided to buy the **Routech "Oikos RT4000"** working center from Scm».*

Was it a difficult approach?
«Not at all. And it's clear why: we built our machine together. Scm Group offered its experience, history, potential, we added our knowledge, our know-how, our decades of experience. Together we created this working center, based on real needs rather than pieces put together to achieve a project drafted on paper. Now we have a real giant. Not only do we work more and better, but it also helped us change our approach; we realized that technology is a vital tool even for those, like us, who were accustomed to traditional operations. And thanks to the precious experience of Scm in solid wood processing, our construction elements have achieved the same levels of sophistication which are normally found in windows and wooden stairs».

So the circle is closed: from the log, through the sawmill and the plant for glulam production, up to beams and finished elements...
«That's true. some materials we transform are "born" in our sawmill in Ravascletto. We have optimized drying we produce wood beams and roofs orblock haus structures which we also design. With "Oikos RT4000" the process is fully integrated. Take this example: a wooden house. we design it; with a specific software we define all wood parts required for its construction, and then these parts are manufactured based on a bill of materials by simply loading the beams into the working center. Then they are cut and processed accurately. The program tells the machine which parts are to be produced and in which sizes, then the necessary operations are prepared. It's all done with minimum waste and then the parts are ready to be sent to the construction site, except for additional sanding operations in some cases, special shaping of the beam heads or parts with multiple chamfers. The five axes allow us to work on all four beam faces at the same time without turning the part. Two grippers pull the beams into the working position where all planned operations are carried out: bores, tenons, dovetails...»
Would you say that this kind of machine you have selected has made the production process much easier?



What are the benefits?
«Certainly **shorter times and higher quality.** *We can measure all dimensions on the construction site and get everything ready much quicker than in the past and with high accuracy, having great benefits also during the assembling process. Within two days we can assemble a 200 square meter pitched roof with primary and secondary framework".*

by
Luca Rossetti

from left: **Gianni De Infanti. Sandro De Infanti. Giulio De Infanti**

engineered flooring

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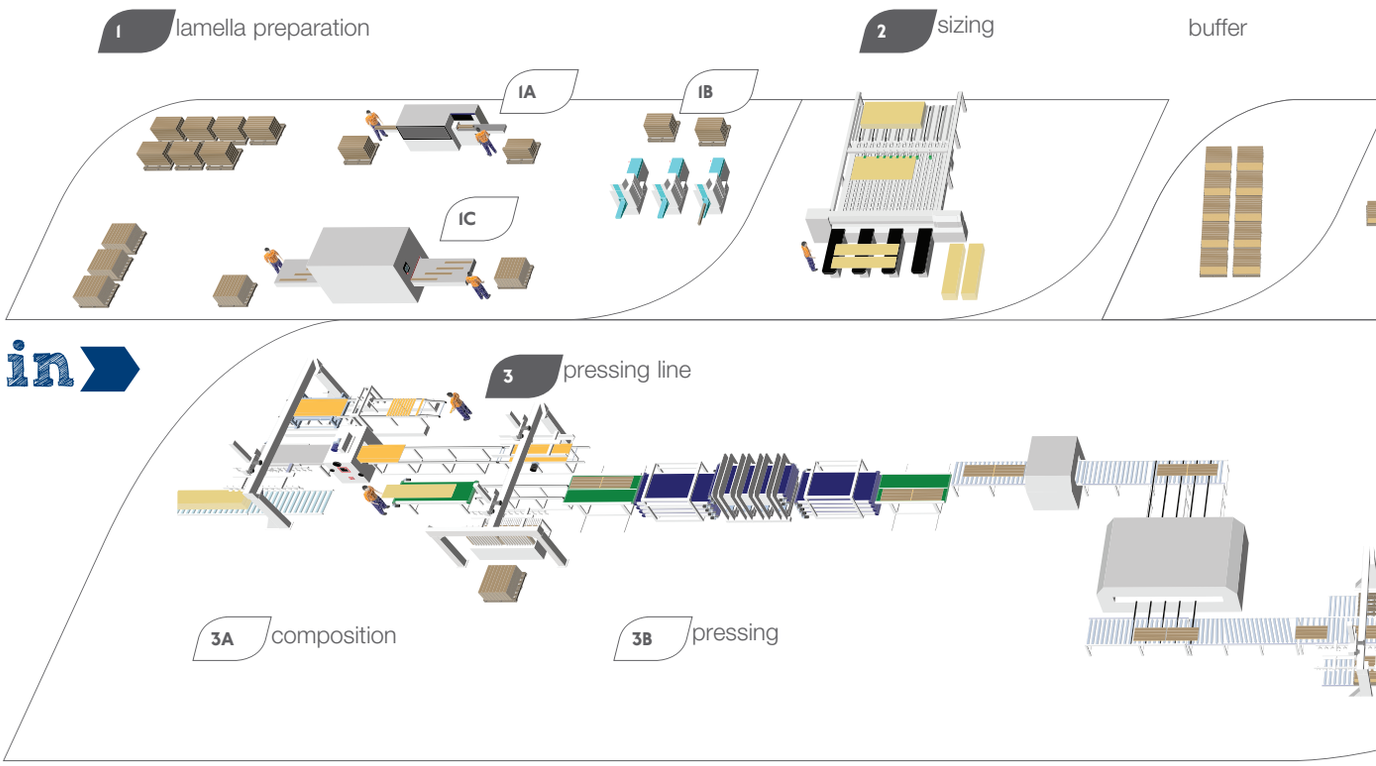


engineered flooring

production process

1 lamella preparation

1A **scm** moulding

1B **selected partners** thin cutting

1C **dmc** calibrating

2 **gabbiani** sizing

3 pressing line

3A **mahros** - **sag** - **selected partners** composition

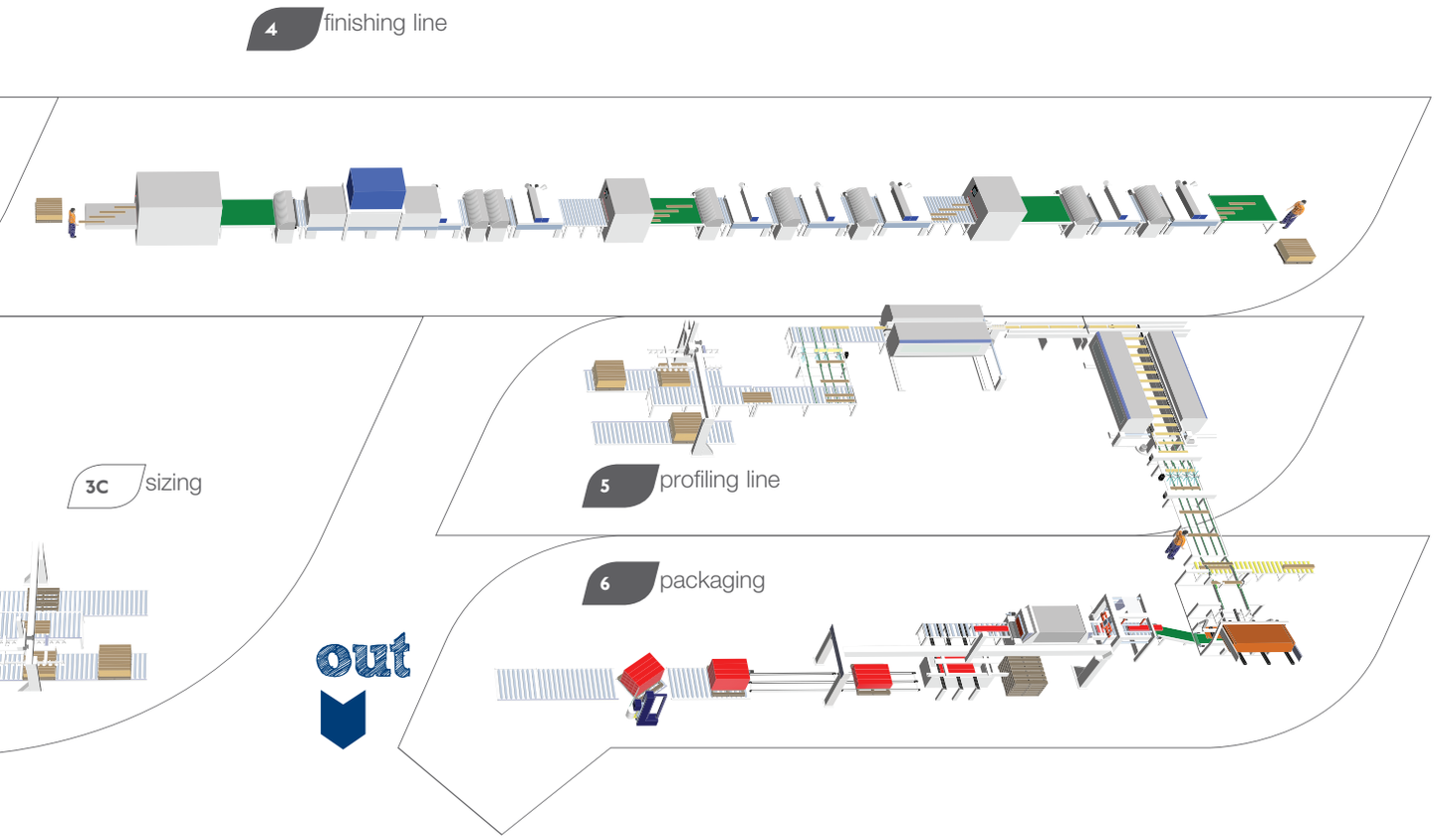
3B **sergiani** pressing

3C **celaschi** sizing

4 **superfici** - **dmc** finishing line

5 **mahros** - **sag** - **celaschi** profiling line

6 **mahros** - **sag** - **cpc** - **robopac** packaging



50 years of research and technology in flooring solutions for a variety of materials, providing flexible productivity and perfect finishing quality

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**
- **Wide belt sanders DMC System**

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 clik 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 whe re 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 Clik 5G locking.

engineered flooring
scmgroup leader in
production process and technology

celaschi

system

new “saw blade” unit for dmc system

prestigious finishes and handcrafted effects for wooden floors that are beautiful to look at and wonderful to touch

To compete on today’s markets, it’s essential to offer the customer exclusive products with the best design and practical features. To help its clientele to acquire and keep this fundamental competitive advantage, **DMC has created a series of technological devices unique in this sector, for producing striking surface effects normally found on handcrafted items.**

These devices, incorporated in sanding machines that use a coated abrasive (DMC System range), produce prestigious finishes such as saw cut, worm-holed, planed and wavy (cross and longitudinal) effects, as well as a wide variety of brushed and rustic effects.

“saw blade” unit

The innovative “saw blade” unit reproduces the uneven surface typically created by a band saw. The possibility to regulate the blade scoring depth and the blade rotation speed means you can control the depth and distribution of the engraving, and therefore define the specific type of end finish you want every time.

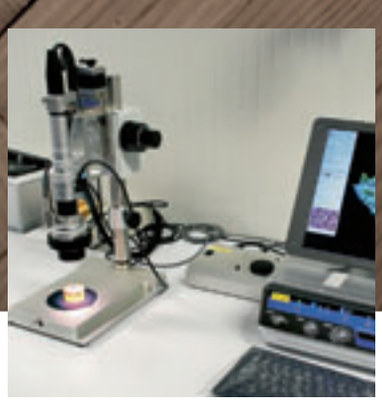
“planetario” unit

The “planetary” unit creates extremely even surface finishes, thanks its multidirectional movement: the result is a finish entirely free of any definite abrasion direction. Depending on the type of tool used, it is possible to obtain various finish effects (ranging from the slight opening of the pores to an extreme structuring) on any type of wood essence.
When fitted with abrasive strip backing pads, it can be used to brush bas-reliefs and three-dimensional details.

The many **DMC** working units for finish effects (all multifunctional and versatile) can be freely combined, thanks to the modular structure of the new **DMC** sanding machine: a single machine can therefore meet every possible surface effect requirement.
By combining the action of the “planetary” working unit with that of the “saw blade” unit, original finishes with a saw cut effect can be obtained, for instance on **strips of parquet or furniture doors.**

The latest working units have been designed and tested by the **DMC High Tech Laboratory** - the centre set up by **SCM Group** at its Thiene premises, for studying and testing innovative surface effect solutions. The range of devices is being continuously extended, thanks to the methodical research work carried out by the centre and the unceasing monitoring of new market trends. **The modular structure of the new System range of sanding machines also allows the new units to be inserted in existing machines, in a simple and cost-effective manner:** this means the machine configuration can be kept constantly aligned with changing production needs.

engineered flooring
scmgroup leader in
production process and technology



dmc

case history
line of profiling machines

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 Benedicine 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.**

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. Out 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 release 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 weìve 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».

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 referent 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».

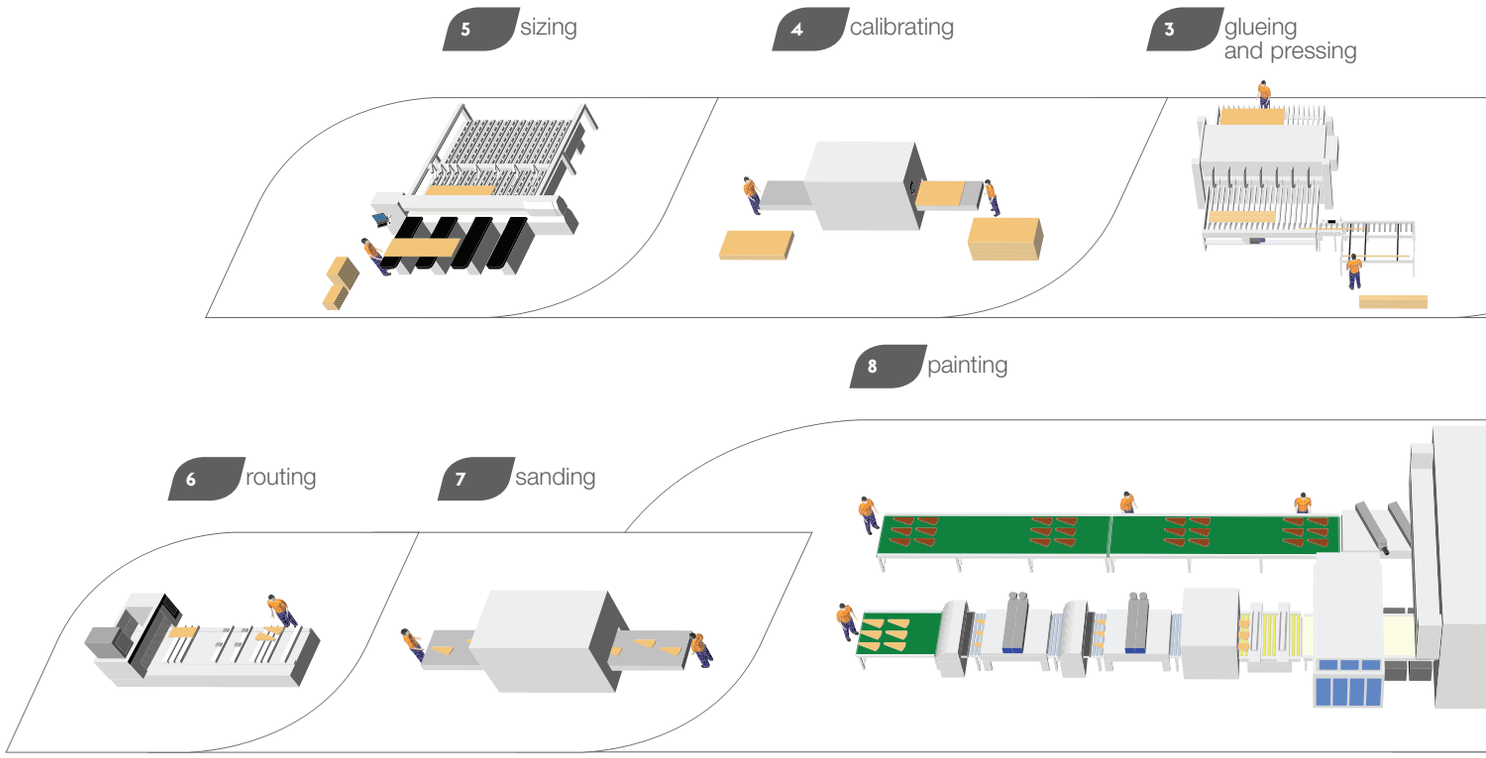
Ewald Fuchs
Managing Director

scmgroup engineering celaschi

staircase

scmgroup leader in
production process and technology

See the interactive section on **scmgroup.com**

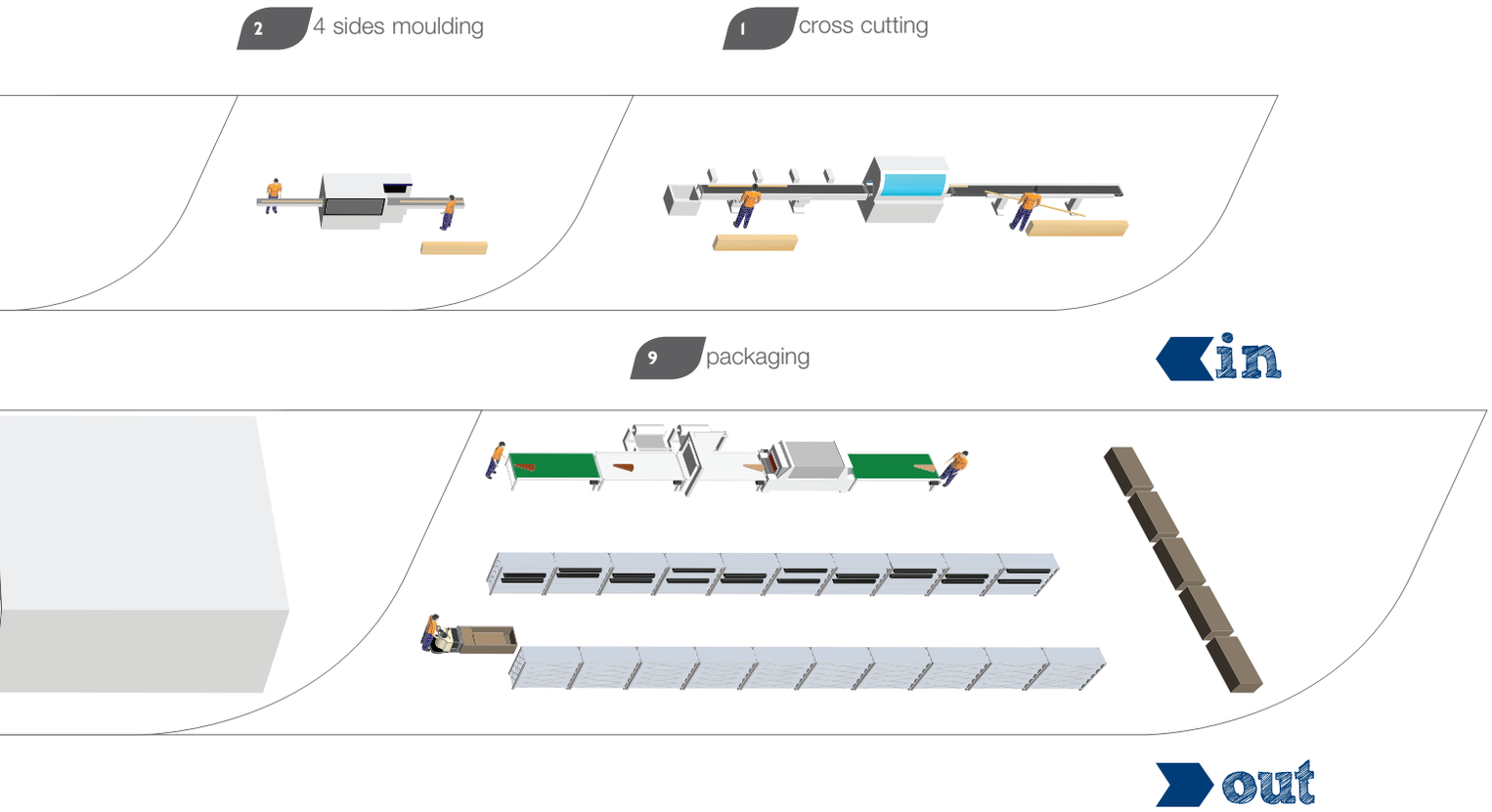


step
production process

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

handrail
production process

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



Beautiful, practical and strong staircases created with scm group advanced technology: flexible and fast machinery with reduced and guaranteed set up times.

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 **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

accord fx

All routing - boring solutions in one machining centre All solid wood machining, doors and windows, staircases

The **Accord fx range with versions 30 and 40** can offer a complete set of solutions for the **production of door and window frames, stairs and solid wood items,** satisfying the many requirements of a developed and demanding market such as that of machining centres.

maximum precision over the entire machining area

The **mobile portal structure** allows **maximum precision** over the entire machining area **even where large dimensions are involved:** Accord fx has bars up to 1900 mm long for all machining units.

reduced down times

The tool magazines, positioned on the machining heads, allow **tool changes in masked time,** or positioned on the mobile portal can hold up to 48 large tools **with substitution in the electro-spindle in just 5 seconds** using the **"Mach 5" shuttle.**

top worktable set-up speed

The **worktable with multiple management levels is always easy to use,** allowing maximum hold and safety thanks to SCM hold-downs. On the **"Matic" version the set-up is achieved in a matter of seconds,** each element involved having its own independent motor allowing simultaneous movement.

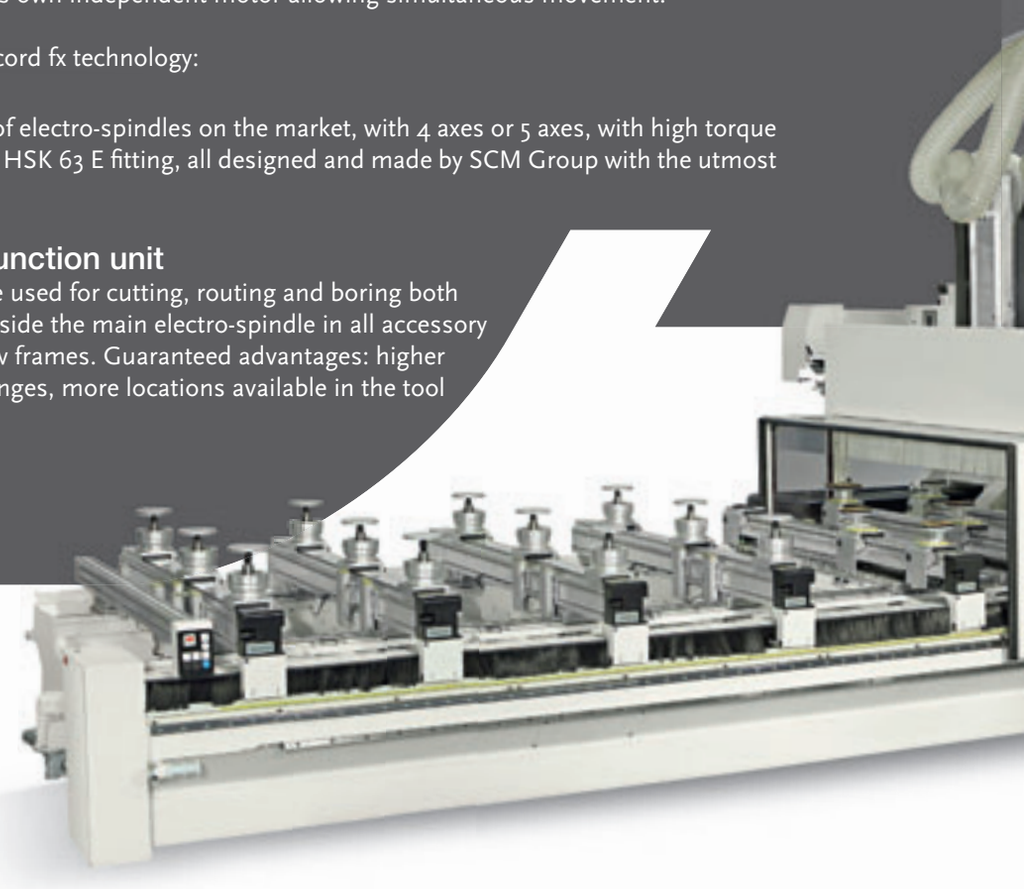
Other distinctive features of Accord fx technology:

machining head

Accord fx has the widest range of electro-spindles on the market, with 4 axes or 5 axes, with high torque or high speed, with HSK 63 F or HSK 63 E fitting, all designed and made by SCM Group with the utmost attention to quality.

"BRC" patented multi-function unit

The exclusive "BRC" unit can be used for cutting, routing and boring both vertically and horizontally alongside the main electro-spindle in all accessory machining on door and window frames. Guaranteed advantages: higher operating speed, fewer tool changes, more locations available in the tool magazines.



“Pro Speed” and “Pro Space” safety systems

The new “Pro Speed” and “Pro Space” safety systems allow you to make full use of the machine’s tential, without obstacles on the approach to the table, with maximum size for pendulum machining, maximum freedom of movement always in total safety.
In the “Pro Space” version the space needed for putting the machine into operation is reduced by taking the speed of the X-axis to 25 m/min.

scm

case history
machining centers for staircases

fontanot

The beauty, functionality and strength of a staircase... all in a brand that makes a difference: fontanot

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, Dealers, 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 standardisation, 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 sizedwith 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".

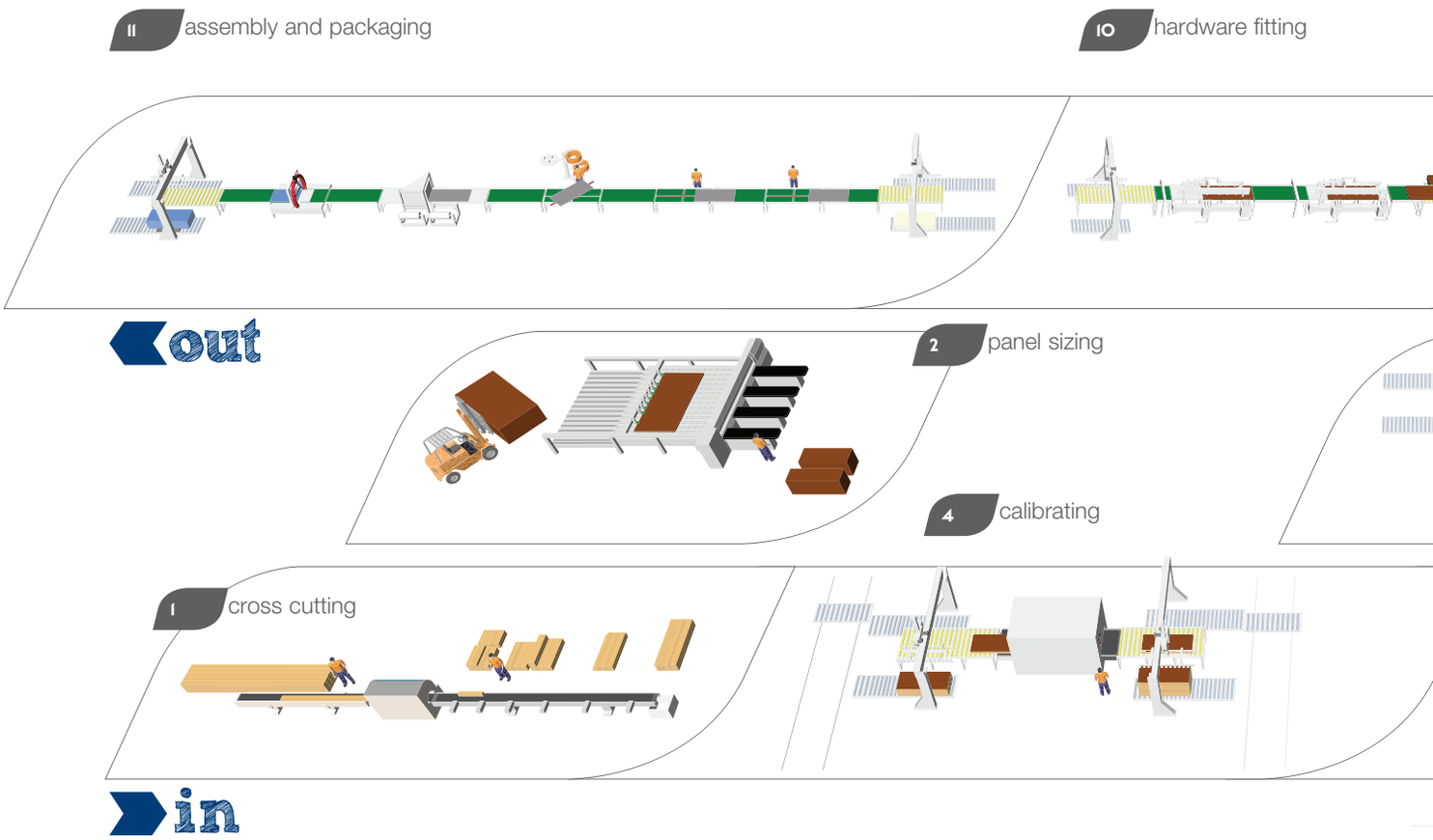
"For us staircase is a furnishing accessory, a perception of the quality and style of an environment. These are strong values that play an important part in every stage of our work... even when we place a piece of beech wood on one of our **SCM Group** work stations!"

Fontanot family and factory

flush door

scmgroup leader in
production process and technology

See the interactive section on **scmgroup.com**



flush door
production process

1 **selected partners**
cross cutting

2 **gabbiani**
panel sizing

3 **sergiani** - **mahros** - **sag**
composition and pressing

4 **dmc**
calibrating

5 **sergiani** - **mahros** - **sag**
veneering

6 **stefani** - **mahros** - **sag**
square-edgebanding

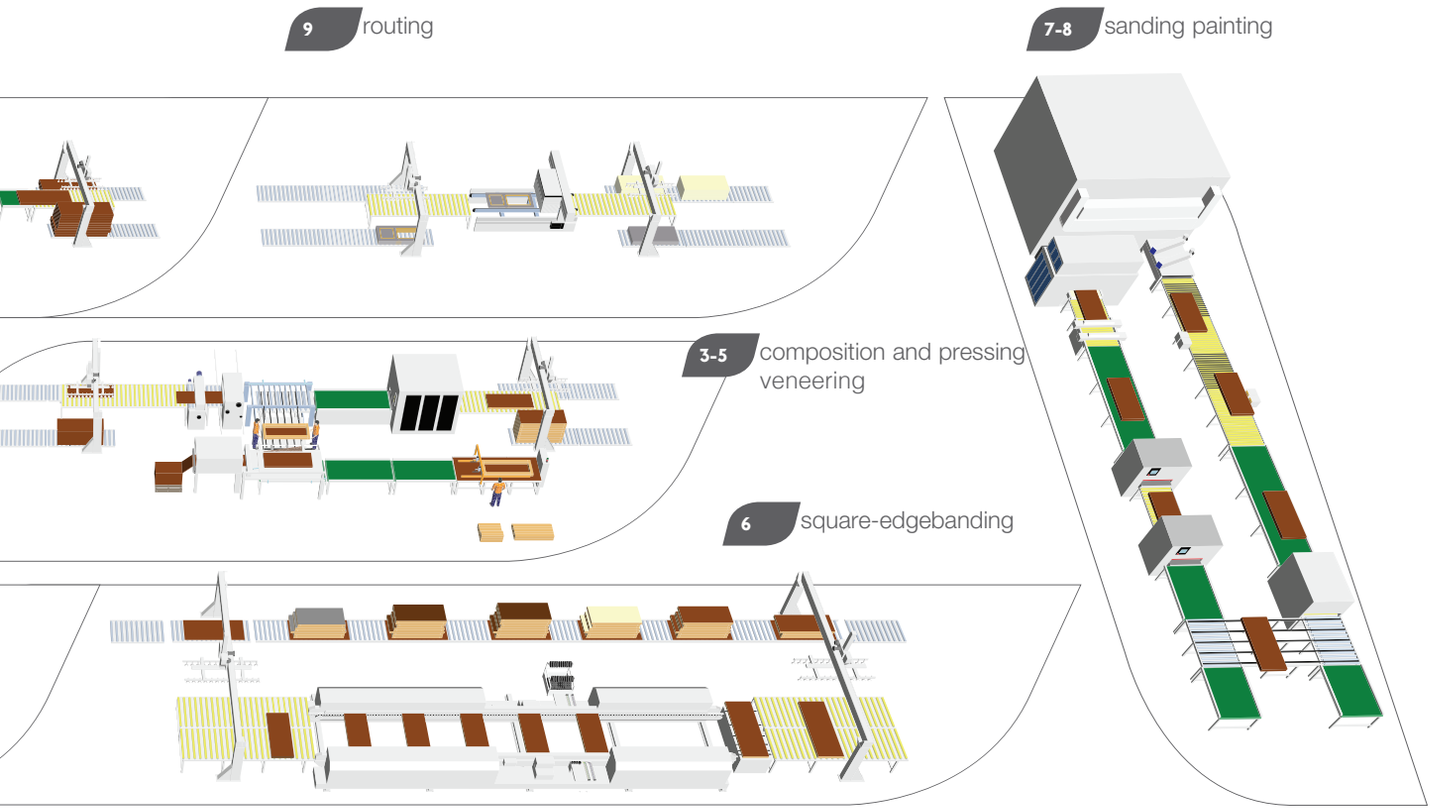
7 **dmc**
sanding

8 **superfici**
painting

9 **routech** - **mahros** - **sag**
routing

10 **routech** - **mahros** - **sag**
hardware fitting

11 **cpc** - **robopac**
assembly and packaging



100 doors/hour in flexible production

The production process of the flush door is characterised by a high degree of flexibility linked to the multiple customisation opportunities for each customer.

Production process comprised by various cells for the manufacturing of flush doors, one flexible squaring-edgebanding cell, one painting line, two working cells and one assembly and packaging line.

The main technologically advanced solutions for flush doors production process:
- **automatic pressing line Sergiani MVC**
- flexible squaring edgebanding machine **Stefani Evolution SB**
- **routech solutions for the flush door processing**

Production integrated system main features:
- System capacity: **100 doors/hour** (in flexible production)
- Staff required: **15 operators**
- Surface area required: **5500 m2**

mvc

single daylight automatic press
the “high speed” pressing machine

Sergiani is presenting the latest version of the MVC single daylight automatic press **with a panel composition station and a new automatic unloader.**
The MVC pressing chamber is one of the main technological assets of the door production line, used for finishing panels with veneers or HPL or CPL laminates.

The distinctive factor that makes MVC unique **is its “high speed”** which is able to guarantee high productivity: the downtimes (opening / closing the chamber, loading / unloading of panels and reaching the set pressure) of the press are cut up to 20 seconds, and this combines perfectly with the new glues which require increasing shorter times under pressure. **The result is a significant increase in productivity.**

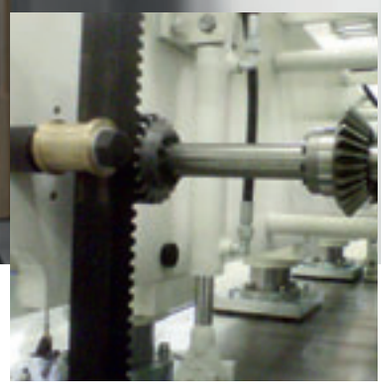
The range of MVC presses is designed for manufacturers which demand a very high quality for products pressed with the various laminates that the market now offers.
In particular, the differing configuration options for the MVC pressing line make it possible to satisfy numerous needs:
- offering **solutions that are simple and flexible while requiring limited investments through a series of pressing line automations (loading, composition and unloading);**
- offering **totally automated pressing systems** with line control and production management software.

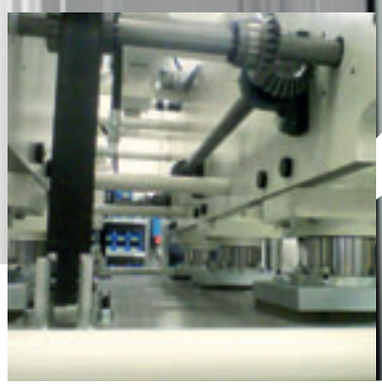
The main advantages of MVC technology are:
- structure with very thick ribs to **“eliminate” bending;**
- solid steel platens with a dual-zone heating system, to ensure that the **temperature distribution is as uniform as possible;**
- cylinders designed by Sergiani with **higher performances and lasting longer** than standard cylinders;
- oil-filled electric heater controlled from the operator panel using Sergiani software to **precisely and constantly maintain the temperature of the platens** also featuring an electronic **energy saving** device;
- electronically controlled hydraulic circuit for fast and precise fluid movement, ensuring high **quality products and reduction of maintenance;**
- **easy press programming and management** due to the synoptic display panel that shows operation of the press in real time, as well as the pressure gauges and the main work cycle data.

The new technological features of the MVC press are also applied on the MLT range of simultaneous load multi-daylight presses.
The MVC technical and process solutions are the result of over 60 years of experience in manufacturing presses and automations for the woodworking industry.

flush door

scmgroup leader in
production process and technology





sergiani

case history
doors production plant

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"!

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 mediumhigh 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 Snovskyis** leading the company.

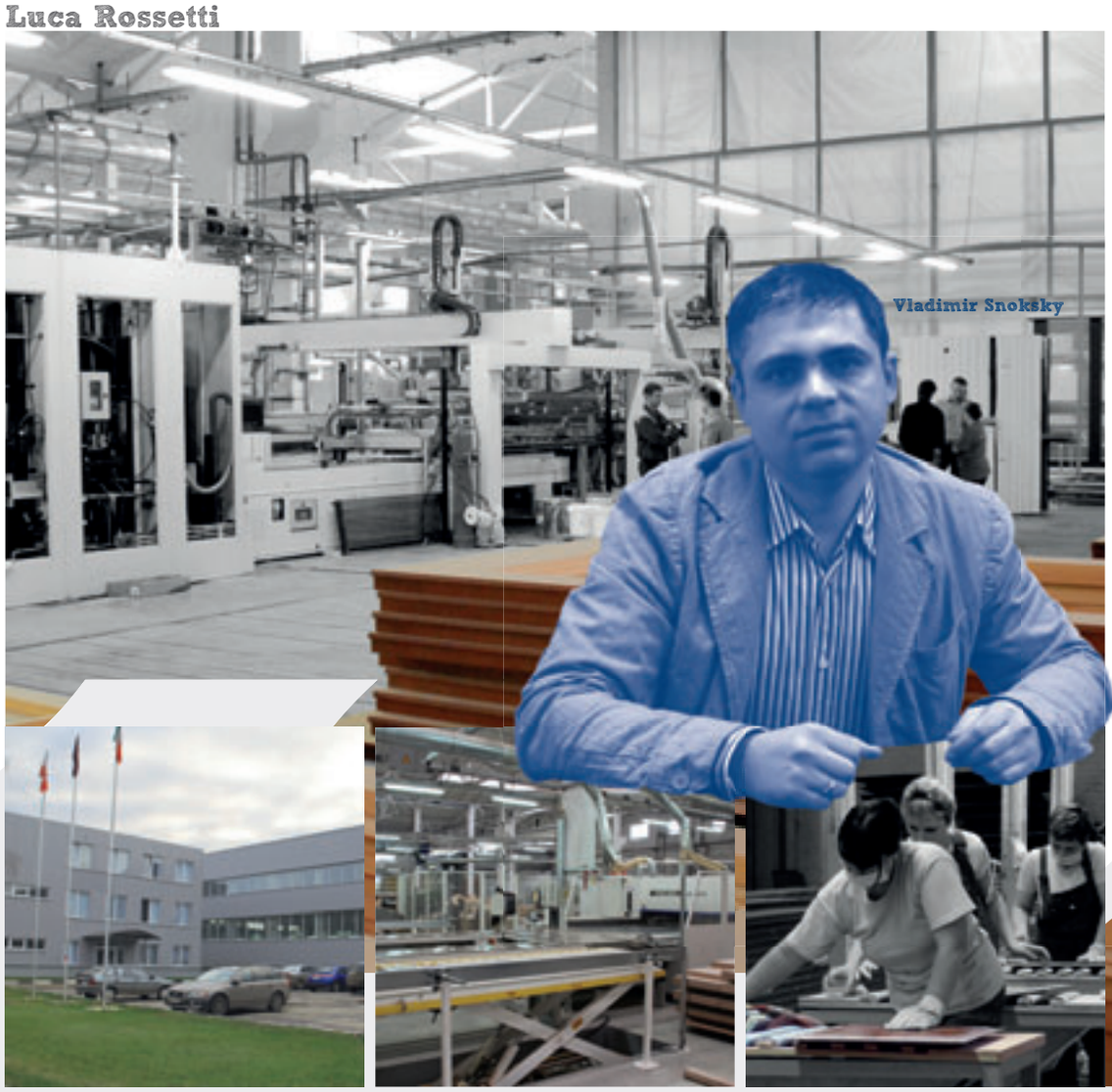
Mr. Snovsky, what was the Italian contribution to this factory?
«Since the beginning of our partnership, all door models within our production have been designed in Italy. But mind you: all the products in our catalog have been specifically created for the Russian market and are produced in our country. 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. 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?
«We 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».*

by
Luca Rossetti



from left:
Mario Rioli's head office.
Gabbiani "Axioma 125" angular panel saw.

kitchen furniture

scmgroup leader in
production process and technology

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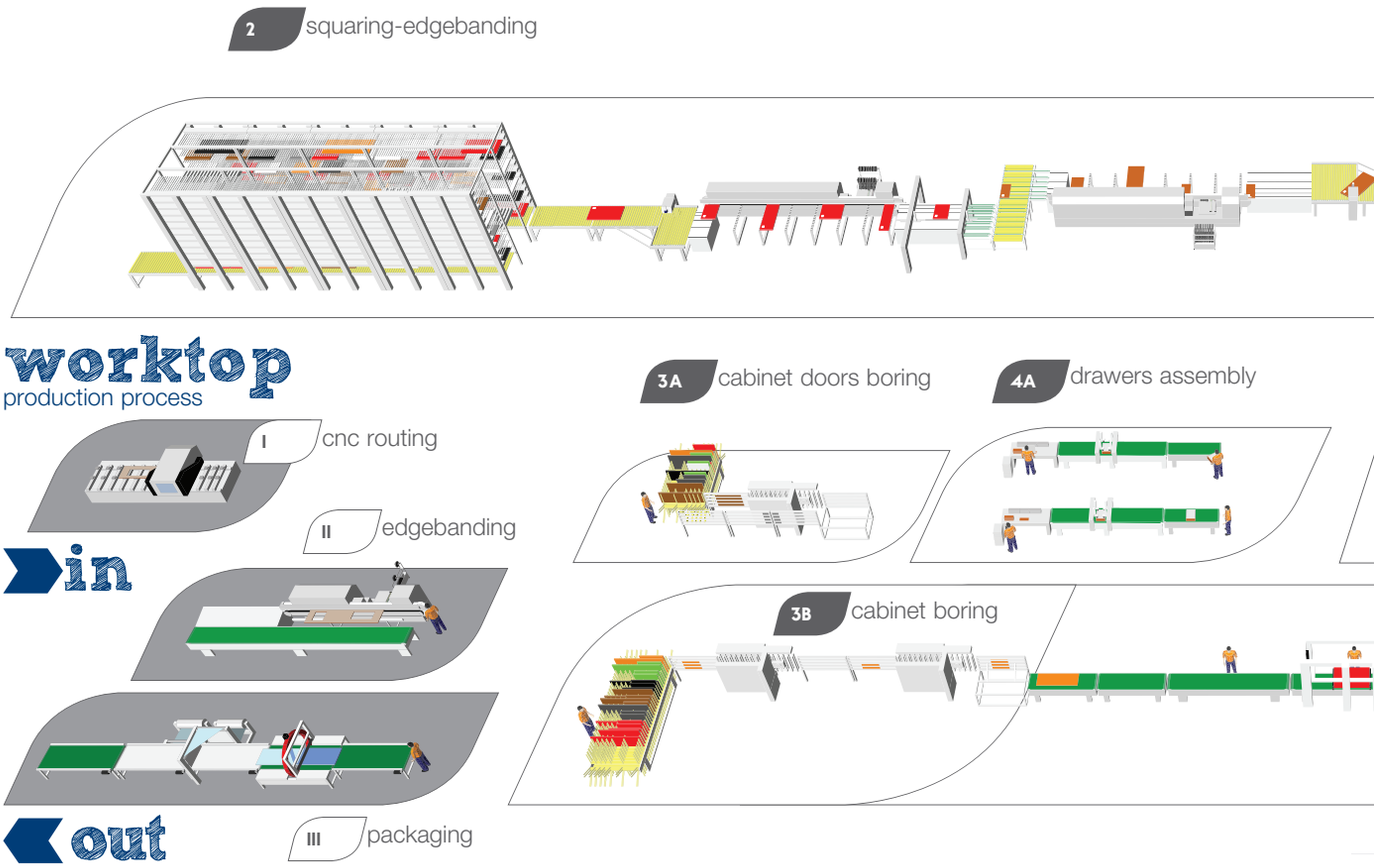


cabinet
production process

I — gabbiani - mahros - sag
sizing

2 — stefani - mahros - sag
squaring – edgebanding

morbidelli
cabinet doors boring

3A 3B — morbidelli
cabinet boring

cpc
drawers assembly

4A 4B — cpc
cabinet assembly

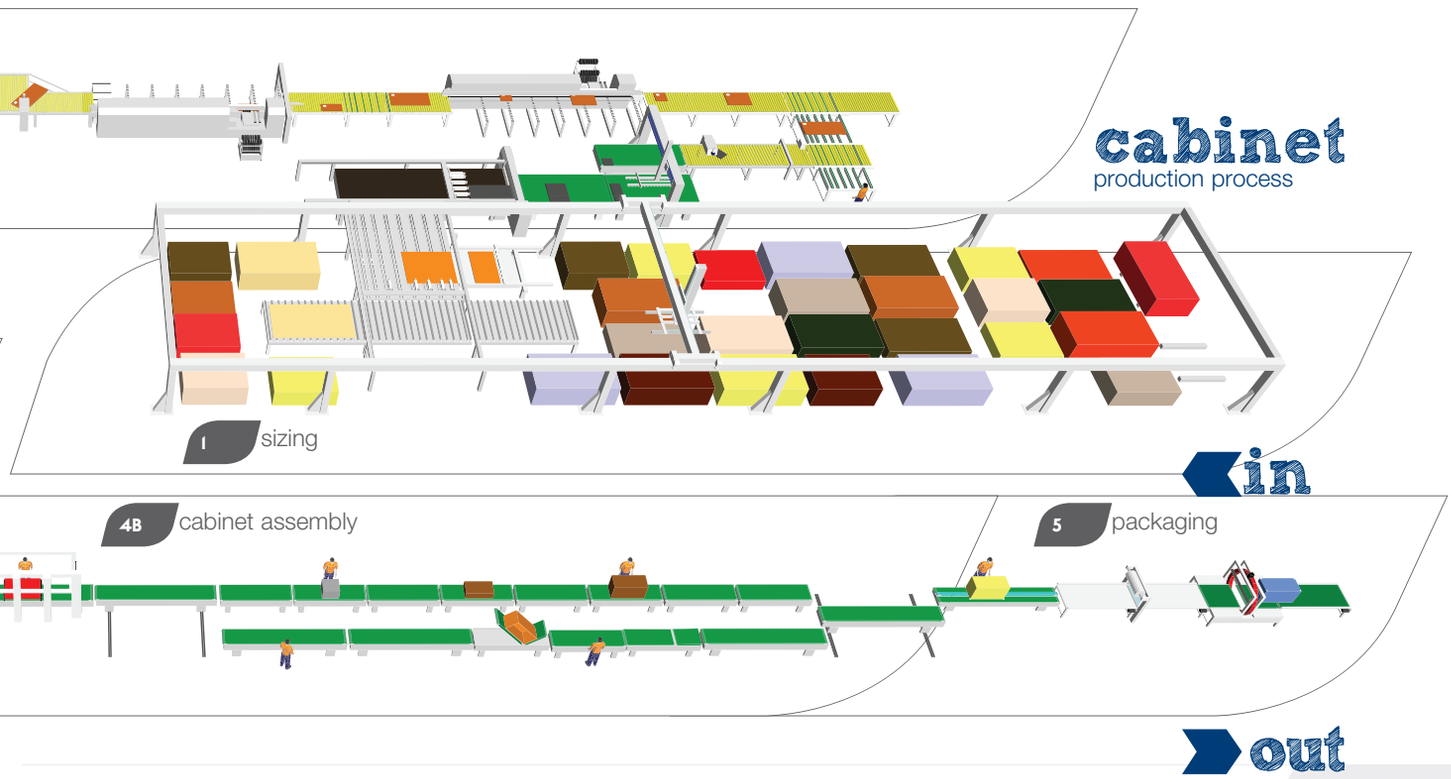
5 — cpc - robopac
packaging

worktop
production process

I — morbidelli - scm
cnc routing

II — stefani
edgebanding

III — cpc - robopac
packaging



30 kitchens/day: the best in term of productivity

The kitchens production process relates to various types of component, such as boxes for base units and wall units, doors and tops. Tops can be made internally, or purchased as semi-finished products from specialised third party manufacturers. In any case, SCM Group designs and produces every type of machine and system required for this process.

Kitchen production is characterised by a high degree of customisation in relation to design, materials, and the setting required by the customer. Production plant featuring an integrated and flexible sizing and boring solution managed by one supervisor machine and complete with other lines and cells for boring, assembly and packaging box components.

Three separated cells are dedicated to processing and packaging worktops.

The main technologically advanced solutions for kitchens cabinet production process:

- The **Stefani Tourer** automation line for moving machined panels with single-sided edgebanding machines
- The **Stefani PU Box**, the new waterproof pre-melter for polyurethane glue
- Edge painting machine **Superfici Laccabord**
- Loading flexible warehouse with 3 axes **Mahros Flex Store**
- **Automatic warehouse Mahros**

Production integrated system main features:

- System capacity: **3000 pieces/shift**
- Staff required: **5 operators**
- Surface area required: **2200 m2**

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tourer

New automation line for moving machined panels
constantly perfect panels with zero effort from the operator!

The TOURER automation line includes an innovative range of devices for moving machined panels with single-sided edgebanding machines. These are designed to **notably increase the productivity of the individual operator, simplifying his work.**

Tourer is the natural extension of the edgebanding machine. It allows the machined panels to be easily taken out and transported to the new insertion area automatically, without the intervention of the operator, without any adjustments, and without the need for software-type supervision. It gives the following immediate advantages:

- **constantly perfect panels,** with the guarantee of no scraping in the various areas thanks to the **iLIFT function** (that keeps the panel raised above the conveyor rollers as it is being taken out) and the **special drive mat** (whose material reduces the friction and the contact surface between the mat and the panel).

- **universal use,** as it can be adapted to any type and length of edgebanding machine, and every size and type of panel (even the smallest and/or unprocessed). There is also the important possibility to fit it on existing machines in order to set up simple but effective edgebanding cells in a short time and in limited spaces.

- the possibility to **feed in panels with dimensions above the device standard,** using the Extra Size kit which easily and cheaply resolves the problem of moving oversized panels. In this case, without any technological complications, the operator himself intervenes and accompanies the panel in its movements (that are always activated from **Tourer**).

The **Tourer** range of return automations is designed to guarantee simplicity and versatility, aiding the work of the operator and increasing industrial production while optimising costs.

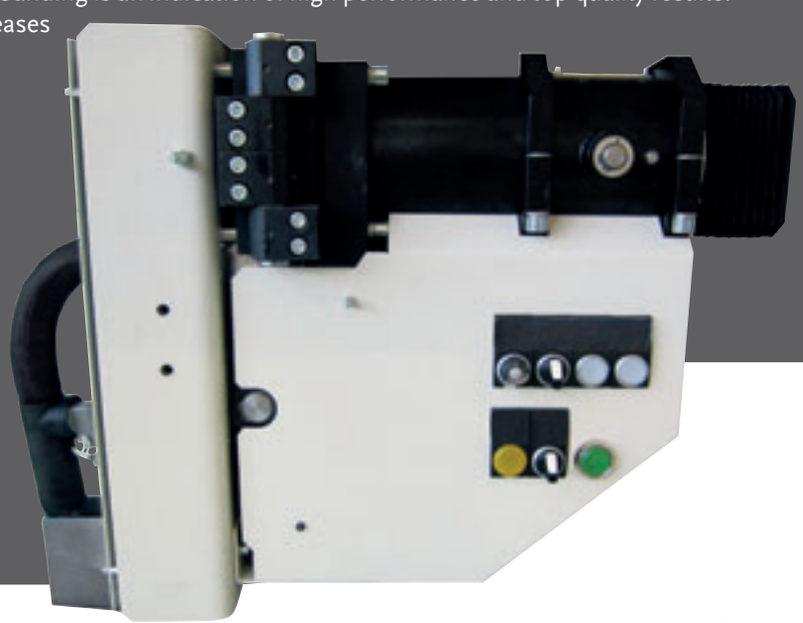
pu box

new waterproof pre-melter for polyurethane glue
using glue has never been so easy!

PU BOX is a further example of how **Stefani** research effectively pursues its aim of guaranteeing top quality machining, developing every detail with the utmost care.
The new **PU BOX pre-melter for polyurethane glue eliminates the problem of the glue coming into contact with the environment** (and especially with the moisture in the environment) - an aspect that usually reduces the quality of the glue itself.
This device makes it easier than ever to use PU glue: the polyurethane glue cartridge is inserted (with its protective casing) in the 100% waterproof seat of the device, and stays there until it has been partially or completely consumed.
This means numerous advantages for the customer:

- **maximum ergonomics when loading and unloading the cartridge. PU BOX is the only compact pre-mel ter on the market that allows you to change or take out the cartridge from the front** rather than the top; this means the operator doesn't need to use a ladder to reach the upper part of the device. True industrial design.
- **Simple, accountable glue management.** PU BOX allows the chemical and physical characteristics of a partially consumed glue cartridge to be maintained, so it can be taken out and put away, then reused at a later date.
- **Maximum technological performance at the service of production. With the Melt on Demand fusion technology,** you can melt and use just the right amount of glue you need. The FIFO (First in First Out) logic for managing molten fluid uses a special pneumatic system (the only one of its kind on the market) to keep the glue recirculating in the reserve plenum chamber, ready for use and maintaining its original characteristics.

The use of polyurethane glue in edgebanding is an indication of high performance and top quality results. The PU BOX pre-melter further increases the added value of the machining operation, thanks to its perfect and efficient use of the raw material.



stefani

laccabord

the edge coating achieves short processing time with a sparing use of laquers

Edge lacquering has always been a very delicate phase in the finishing process.
As a matter of fact, the preparation of the edges are still today often executed without the use of a specific machine, but rather through spraying the stacked work-pieces by hand.
The preparation cycle done in this way implies a series of issues: long finishing cycle times; high lacquer consumption; the requirement of building homogenous stacks in terms of work-piece size, which ultimately means breaking the batches of each single order.

Laccabord is the advanced solution, which solves all these issues:
- it achieves **the edge lacquering of pieces with different sizes, one after the other, without any changes in the settings.**
- It makes it possible to work: **with short UV finishing cycles, avoid lacquer waste, and with solvent-free 100% solid UV lacquers**

The machine has the same machine base as an edge banding machine, but it executes a certain finishing cycle thanks to a series of working units positioned one after the other. The available units include; lacquer application units, UV drying units, and sanding units.
- the preparation (filling) of MDF edges, to prepare edges for the next spray finishing phase;
- the lacquering of veneered edges prior to the panel surface lacquering on roller/curtain coating lines.

Particular highlight needs to be given **to the belt application unit NST.** This unit applies coating on both shaped and straight edges, using both lacquers or UV fillers, by means of a belt which is formed by following the shape of a counter-mould, specifically prepared for the type of edge to be lacquered. The applied lacquer quantity and the application quality are uniform on the entire edge, very precise and even if the edge is shaped. It is possible to apply various lacquer amounts according to the job to be done (from 30 to 150 gr/m2 per each unit). The change from one type of edge to another is very quick. It is only necessary to change the counter-mould (plastic shaped blade) through a quick change system. The shaping of that counter-mould can be done directly in the machine by means of a specific device.

The filling of chipboards edges, a further opportunity.

Thanks to the new **belt application unit Type BST** (patented system), it is furthermore possible to easily fill any type of flat or shaped chipboard edge. This new unit achieves the application of high lacquer amounts for each pass, optimizing lacquer consumption and waste. The change from one edge type to another is achieved without any particular setting. The processed edge is filled and smooth and it optimally adapts even to the application of critical foils, such as thin or high gloss foils. The filled edge is eventually also suitable for the application of base or top coats.

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superfici

case history

production technologies for kitchens

boffi

A high quality production of kitchen and bathroom furniture for one of the most renowned brands of "made in Italy" all over the world. A success based on history, entrepreneurial skills, design, focus on international markets but also technology...

There are names, brands that immediately bring a product, an image, a concept to our mind. Boffi (www.boffi.com) is part of this elite, these brands that draw a clear picture in our minds. A success with a long history, the result of a business vision that pays attention to every detail, every aspect of furniture production.

From the joiners shop founded in 1934 in Brianza to a synonym for design, elegance, quality and style.
"We have always been addressing the high end of the market: we operate in a niche with very few players and this is where we want to be, ensuring Boffi customers that they get the best in terms of bathroom or kitchen furniture. We have a constantly and massively growing demand, which we wish to meet without compromising our standards, so staying in full control of every single stage of the production cycle. Because we could get full control on quality and times only by bringing all possible stages in-house. We have made a series of investments we have been planning in recent years, always aiming at that perfection our customers expect from us".

A real challenge...
"No doubt. An important step in our history that has allowed us to grow in every direction. We have decided to avoid supplies "from stock" in order to maintain a strong focus on quality.
We work according to handicraft principles, with a focus on details typical for craftsmen. We like to call ourselves 'numerical control craftsmen'. And these principles are valid throughout our work: for wood, lacquer, polyester, steel, aluminum and Corian elements... materials, processes, different elements we handle carefully because, once assembled, they will allow us to produce one of the kitchen or bathroom sets we are successful and popular for all over the world, products that represent us, reflect our choices, what we have decided to be. In our joinery workshop - where we prepare the tops and all wooden elements - we assemble each part, every component and we execute very accurate controls, both when it is manufactured in-house and when it comes from suppliers we have been selecting over the years.
Every single piece, every door, every tiny detail is picked up, turned, examined and checked. A costly procedure, which is however necessary for Boffi. Upstream we have a PC-driven warehouse that feeds two panels saws. From there, the workpieces are sent to two edge-banding and a calibrating/sanding machine by Dmc we purchased a couple of years ago, and decided to place here to relieve the workload of the painting department, where there is a lot to do because finishing quality is essential for a product like ours. Since we installed one machine directly in the joinery department, we have stremlined our workflow. After the elements are sanded, they move on to drilling and machining centers, and then to painting. Before that, they undergo an additional check in a control station, where our ladies check every single element once again. I said 'ladies' because I am convinced that female attention, vision and sensitivity are essential in this job, in fact we are carrying on specific programs in cooperation with the Enaip training center and Cantù-based Clac for this and other types of professional skills".

Mister Marelli, please let us go back to technology and sanding. How important is it in your activity, in your success?
"As to sanding, we believe that finishing is a core aspect for our image and it is an important contribution in our project, since it allows us to be recognized and stand out among others. Today there are excellent machines for this operation, however Boffi has maintained some manual work, because in our furniture there is always a final touch, a slight buffer pass on an edge, the sensitivity of our operators' hands...
As to machines, we have been cooperating with Dmc from the Scm Group for several years. I have already talked about the Unisand K machine we have installed in the joinery unit a couple of years ago to relieve the workload of a "Topsand" that has been operating non stop for almost a dozen years, an absolute reliability 'at full capacity' that convinced us to purchase a second machine for the joinery workshop. Here is where all

the finishing work is done: from polyester in its different stages (roughing, paraffin removal, pre-final sanding) to all wooden elements. We also purchased a third Dmc sanding machine, a "Topsand" we have installed in the division for special productions, where we carry out research and innovation, where we develop prototypes and build Corian doors".

You said doors?

"Yes. With Dmc we have studied a suitable solution for this product we are the only one to offer. Corian is commonly used for shelves, but we also use it for doors with great results, so we process it in-house using this and other technologies we have created.

As I said, sanding is an important process in our job. You will have noticed that we have not installed the sanding machine in line before the painting robot. That's because we care more about quality than productivity, so we chose not to automate this stage, so that every workpiece can be double-checked by operators before it is painted. In other words, we preferred to create a sanding division where we sand edges, surfaces, we proceed to control them, and finally we finish them manually before passing to painting. And the same care goes for painting. Take our polyester, for instance: we apply seven layers on the edges, four on flat surfaces. In between we carry our countless sanding and checking operations. But in the end we have a kitchen or bathroom set with bright surfaces, beyond 88 Gloss, like a mirror. Most manufacturers envy such result, that we could achieve only because every process stage is based on our knowledge and experience, and on suitable and efficient machines. In order to obtain Boffi quality".

by
Luca Rossetti



living room & bedroom furniture

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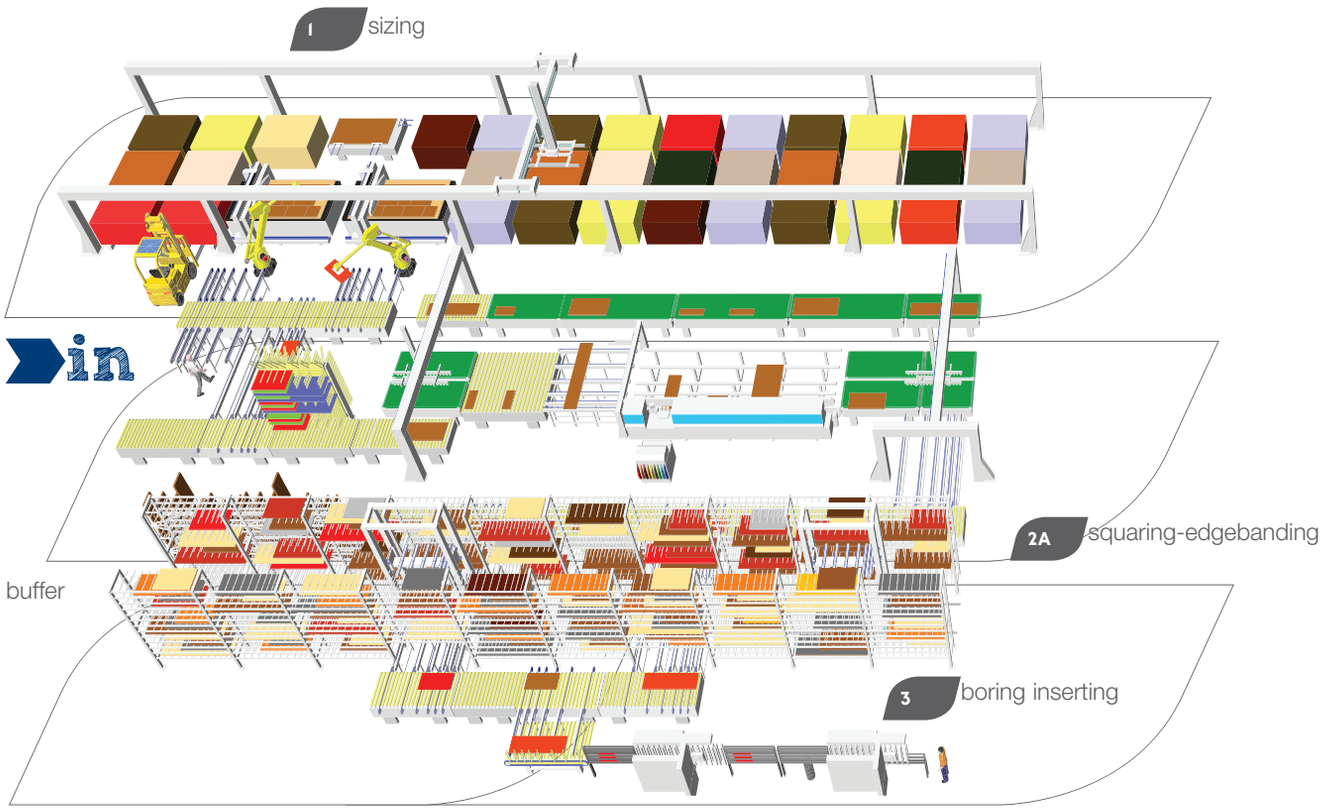
See the interactive section on **scmgroup.com**



living room & bedroom furniture

production process

1 **morbidelli** - **gabbiani** - **mahros** - **sag**
sizing

morbidelli
cnc edgebanding

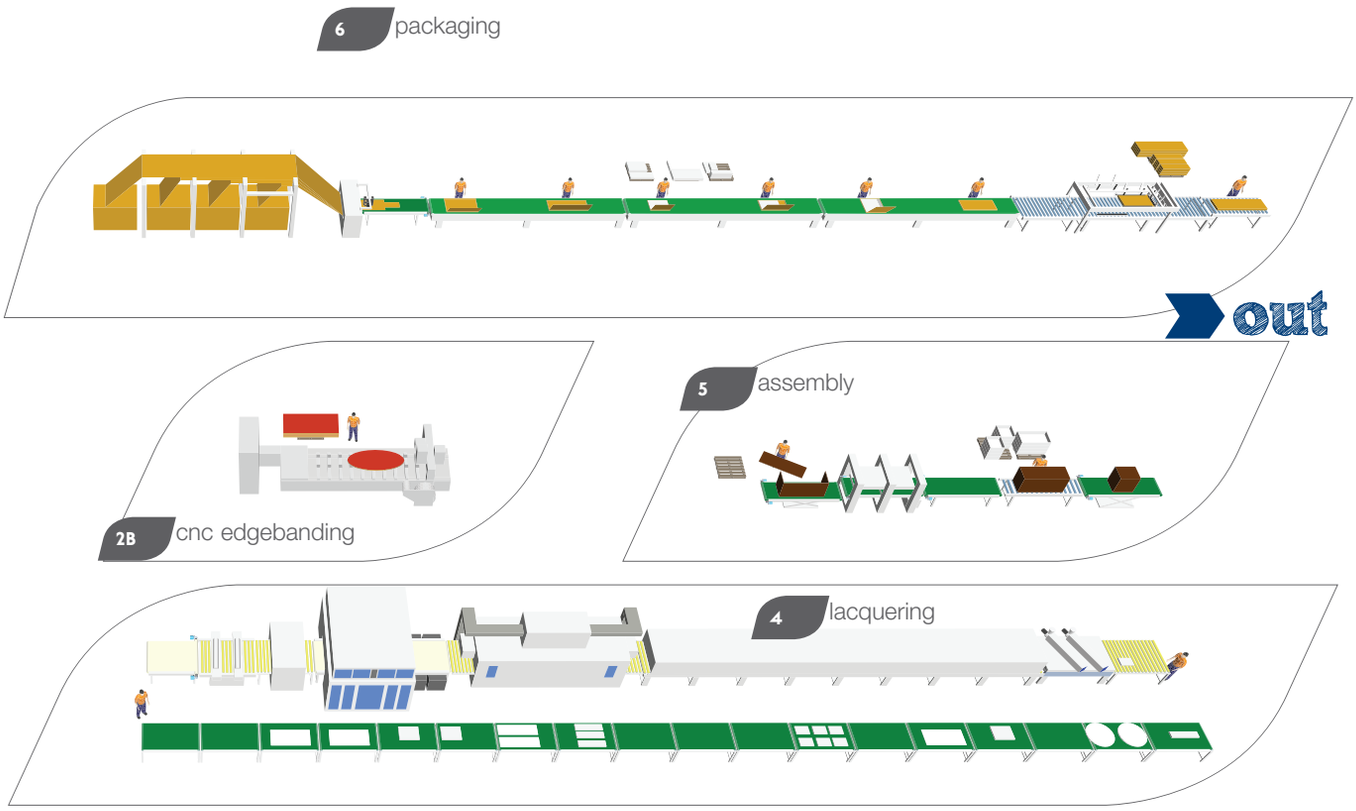
2A 2B **stefani** - **mahros** - **sag**
squaring-edgebanding

3 **morbidelli**
boring inserting

4 **superfici** - **dmc**
lacquering

5 **cpc**
assembly

6 **cpc** - **robopac**
packaging



1000 CUT-TO-ORDER PIECES/SHIFT

High customization: desing and new materials for customer's ambitious standards

The production process for living room and bedroom furniture involves single elements such as wall units, walk-in wardrobes, beds, dressers, bedside tables and other furnishing accessories. There is a high degree of customisation when it comes to the design, the materials, and the setting required by the customer. This type of product is increasingly made with sandwich or honeycomb panels. The childrens' room range offers a wide range of shapes and colours. Production process featuring an integrated and flexible panel sizing, edgebanding and boring solution, managed by one supervisor machine and complete with other assempbly and packaging lines.

The main technologically advanced solutions for living rooms and bedrooms furniture production process:

- new working centre for hardware insertion range **Morbidelli REM**
- CNC working centre for boring, routing and hardware insertion Morbidelli **Uniflex**
- New bilateral edgebanding machine **Stefani Evolution S**
- **Superfici Valtorta Bravorobot** finishing machine

Production integrated system main features:

- system capacity: **1000 pieces/shift**
- staff required: **4 operators**
- surface area required: **1700 m2**

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rem 200

the standard model of the new Morbidelli range

Boring-routing and insertion of hardware with vertical machining operations

From **customised end products for a highly differentiated market** attentive to design and new trends regarding materials, finishes and compositions, to **production technologies bringing together different machining phases.** These are the requests expressed by the furniture-making industry. The new range of **Morbidelli** processing centres, with the **REM models** based on vertical machining, offers efficient solutions for satisfying the customer in terms of financial savings, end product quality and minimum overall dimensions.

financial savings:

The utmost attention has been paid to energy savings with regards to the electricity absorbed in each machining phase.

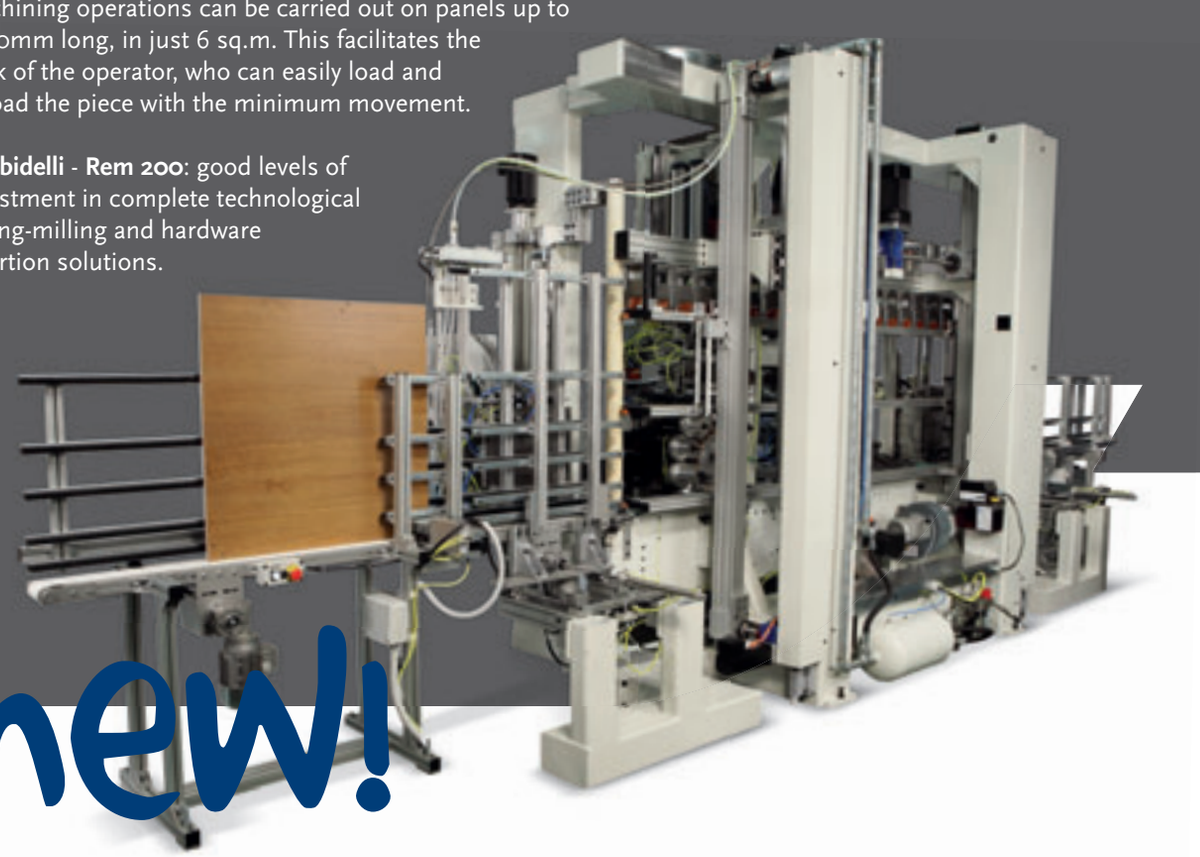
finished product quality:

- Very careful handling of the piece during the machining phases, using materials and methods purposely designed to avoid jolting and scraping that could damage the surface.
- Maximum precision in every machining operation.

minimum overall dimensions:

Machining operations can be carried out on panels up to 3000mm long, in just 6 sq.m. This facilitates the work of the operator, who can easily load and unload the piece with the minimum movement.

Morbidelli - Rem 200: good levels of investment in complete technological boring-milling and hardware insertion solutions.



new!

uniflex

high precision in boring operation and greater flexibility in production to assure quality
and customized working to the Furniture Industry

To look over the future always moving toward the productive demands of the market requiring high flexibility and wide configurations. Morbidelli creates UNIFLEX, as natural evolution of the models UNIX KBT and BT. Uniflex, thanks to the wide range of options for customizing the machine, is the right solution to respond efficiently to any production demand.

Three are the main features that make Uniflex an high competitive machine:
- **High accuracy of boring operation** thanks to the new mechanical structure at "closed ring" that ensure extreme solidity and stiffness of the machine;
- **High productivity** assured by the possibility to process simultaneously two panels at a time, thanks to the upper and lower operating units.
- **Wide possibilities of the integration of the machine** thanks to manual and automatic loading and unloading devices that allow the right choice for each particular production requirement.
- **NEW UPGRADE – no piece-loading downtime with new in-through automatic** table that allows the operator to load the pieces securely while the machine is performing machining operations.

Uniflex is available in two models:
- modello **Uniflex S**, for customers who are just starting to invest in modernization of production, same production level of a medium industry, and move towards high-tech CNC machining centre.
- **Uniflex HP:** for customers requiring high productivity performances.
- New bilateral edgebanding machine Stefani Evolution S

A quick look to the main technical features: up to 96 independent spindles, 2 HSK 63 electrospindles, 2 fixed or automatic saw-blade units, 2 hinges units, the work-table has been designed to guarantee the maximum quality of the finished products and the new geometries of the clamps displacing piece to better optimize the working process to reach high level of productivity and efficiency.

morbidelli

nuova evolution s

the not-to-be-missed edgebanding evolution for small- and medium-sized firms

industrial technology with minimal dimensions and investment

The new Evolution S two-sided edgebanding machine with panel squaring function is a step forward in edgebanding technology. In fact, it's **the first industrial model on the market to also provide the panel squaring function in reduced dimensions** compared with the alternatives marketed by other manufacturers. Evolution S perfectly combines the technological wealth and productivity of edgebanding machines designed for the medium/high sector with the reduced dimensions and minimal investment that are essential in the small/medium firm (its target).

natural technological upgrading

Evolution S offers not only a double shoulder for the simultaneous machining of the two panel sides, but also **a panel squaring function** that immediately resets the correct panel geometry and dimension when necessary. And all this with investments similar to those for an average single-sided edgebanding machine.

unexpectedly simple

Working with Evolution S is **extremely simple.** The operator can, in fact, use the same skills learnt on a traditional single-sided edgebanding machine, without needing any further training.

the technological evolution based on experience

Evolution S can be configured with the same technology used in the Stefani product range - the result of over 60 years of tireless research in the field of panel edgebanding: reliable and efficient working units, with customisable degree of flexibility; the possibility to machine both traditional and innovative materials, the smart and multi-quality management of the gluing technology.

Evolution S is a real technological leap forward for structured small-and medium-sized firms that want to optimise their production costs with the aid of a machine that guarantees higher productivity with the minimum investment.

new!

living room & bedroom furniture
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stefani

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.

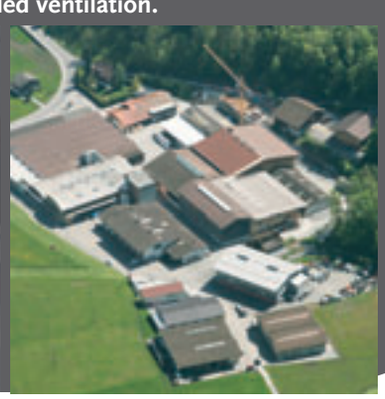
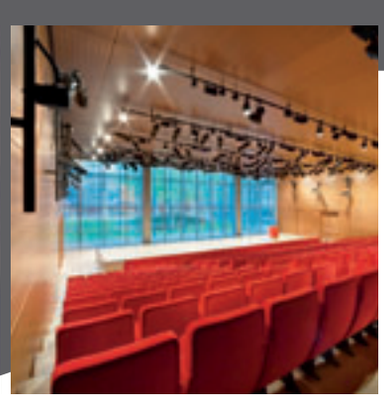
new software

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 for topakustik inbau

Topakustik is a worldwide, well-known brand name in the field of acoustic panels, leading to N'H Akustik + Design AG, company located in Lungern, Switzerland. The company is directed by Arthur Fries, and has 130 employees.
Topakustik products are sold all over the world, with an export share of 65%. The ideal use of the **Topakustik** products is in rooms where people need proper acoustics, such as for example in schools, restaurants, offices, auditoriums, conference rooms, or wherever it is important to grant an optimal listening environment to the visitors.
Among the best examples of **Topakustik's** jobs: Burj Khalifa - Dubai, New York Times – New York, Reichstag - Berlin, and KKL - Lucerne.
The relationship with Superfici started in 1996 with the purchase of the first finishing line. The equipment, in operation for 15 years in two shifts, has always given excellent service, and this led them to choose Superfici again when it was time to decide for the new investment in 2011.

The main goals of the 2011 plant were:
• Use of environmentally friendly lacquers
• Simplified production process
• High quality finishing in one pass
• Flexibility - to be able to manage even small batches.

"After using the plant for about 9 months, we are again convinced that the right choice was made with Superfici: we gained competitive advantages on the global market thanks to the increase in the production capacity and in the flexibility" says Mr Fries, director of Topakustik.

superfici

case history

complete plant for furniture production

calitan

A new factory with an ultra-modern plant produced entirely by SCM Group to double production in the shortest possible time

Calitan of Leka Opatowska is a splendid example of what it means to produce furniture today in Poland, a European country which has long been a leading player in our sector with a history, a present and a future worth telling...

Calitan was founded in 1975 when Jan Jagieniak began producing wardrobes.
Belonging to the **Soviet block** had its advantages: the Soviet world was hungry for furniture and Jagieniak was ready to oblige.

Relations with Russia gradually deteriorated, suddenly the reference market disappeared and the company had to find new openings, new opportunities. As part of the restructuring plan, efficiency and competitiveness were the new watchwords. Calitan opened up to the world and **chose to export**: over 80 percent of Polish-produced furniture is sold abroad, with Germany and Austria the main export markets. Calitan is not a brand or a name, it is a furniture producer: it produces and relies on a dozen or so distribution giants, big customers who take care of sales right through to the end consumer.

"We are an industrial furniture factory that produces large quantities", explains Janusz Jeziorny, production manager. "Our strength lies in numbers: in our plant in Leka Opatowska we process in the region of 18 thousand square metres of panels per day".

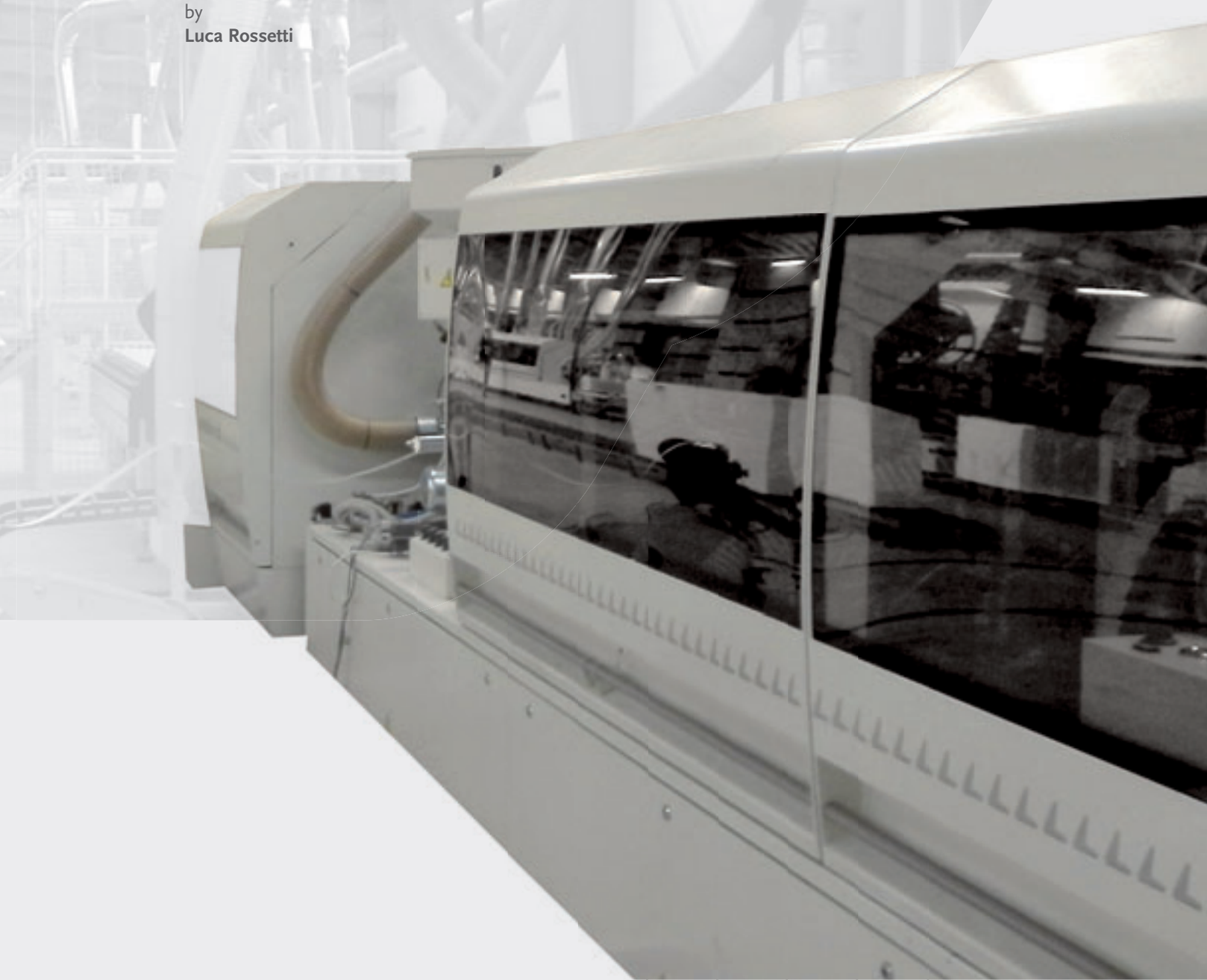
*«We've purchased a new line from **Scm Group Polska** and we've constructed a purpose-built factory because we must double our production capacity and turnover from 10 to 20 million euros per year", says Jeziorny.*

THE NEW PLANT
Mr. Jeziorny, why have you chosen Scm Group for this important expansion?
"In 1995 we purchased some Morbidelli boring machines; since then we've been working non-stop, round the clock, with excellent results in terms of dependability and end product quality. Since we had to build a second factory alongside the first one, we decided to involve SCM Group in the tender, and in the end it won the order. Both technical and commercial considerations were crucial: on the technical side, past experience and the technical solutions proposed immediately convinced us. The investment required was also appropriate for the new plant which is now operating, with lines that combine flexibility with the possibility of producing large volumes".

The new Calitan factory features a particularly effective layout with "islands" for the various processes. At the beginning of the line is the sectioning process, performed by a powerful **Gabbiani A3** angular panel saw fed by a lift truck which positions the packs of panels on the loading tables via which they are then conveyed to the transverse and longitudinal cutting; a **Mahros** stacker withdraws the sectioned pieces and stocks them outside the line.
The second phase, edgebanding, is performed in two different areas. On the one hand, we have what could be called an "off-line department", where a **Stefani** single-sided **Solution** carries out edgebanding of small parts or parts with particular shapes and characteristics. This is a versatile solution as it allows for easy management of parts which it is not expedient to send to the main square-edging line; this is a very impressive line roughly fifty metres long, where the first pair of **Evolution SSB** edgebanding machines work on the long side, with an aperture up to a width of 1600 millimetres, while the second pair work on the "short" sides and can effectively process elements up to a length of 3200 millimetres.
The same principle – one solution for the simplest operations, for small batches where manual intervention is possible, and a second one for the main bulk of the work – has been applied to the boring: a **Morbidelli Zenith** is used for the less demanding cycles, while the bulk of the boring is performed on

the third “island” dominated by a powerful super-equipped Morbidelli **Powerflex**, the group’s state of the art in terms of boring, a machine that combines power with a very high speed and an extraordinary flexibility, capable of producing very complex boring patterns extremely rapidly. Here, automation of the loading and unloading operations is essential, and is performed by two **Mahros Brush** stations.
This impressive plant is completed by one fully automatic packaging system by Cpc and a Celaschi which is used to cut into two equal parts panels which are processed as if they were one single element, after being edgebanded and milled. Here again loading is manual, while the finished pieces are stacked by a **Mahros Brush** station.
In short, a complete perfectly integrated industrial plant designed and produced

by
Luca Rossetti



business furniture

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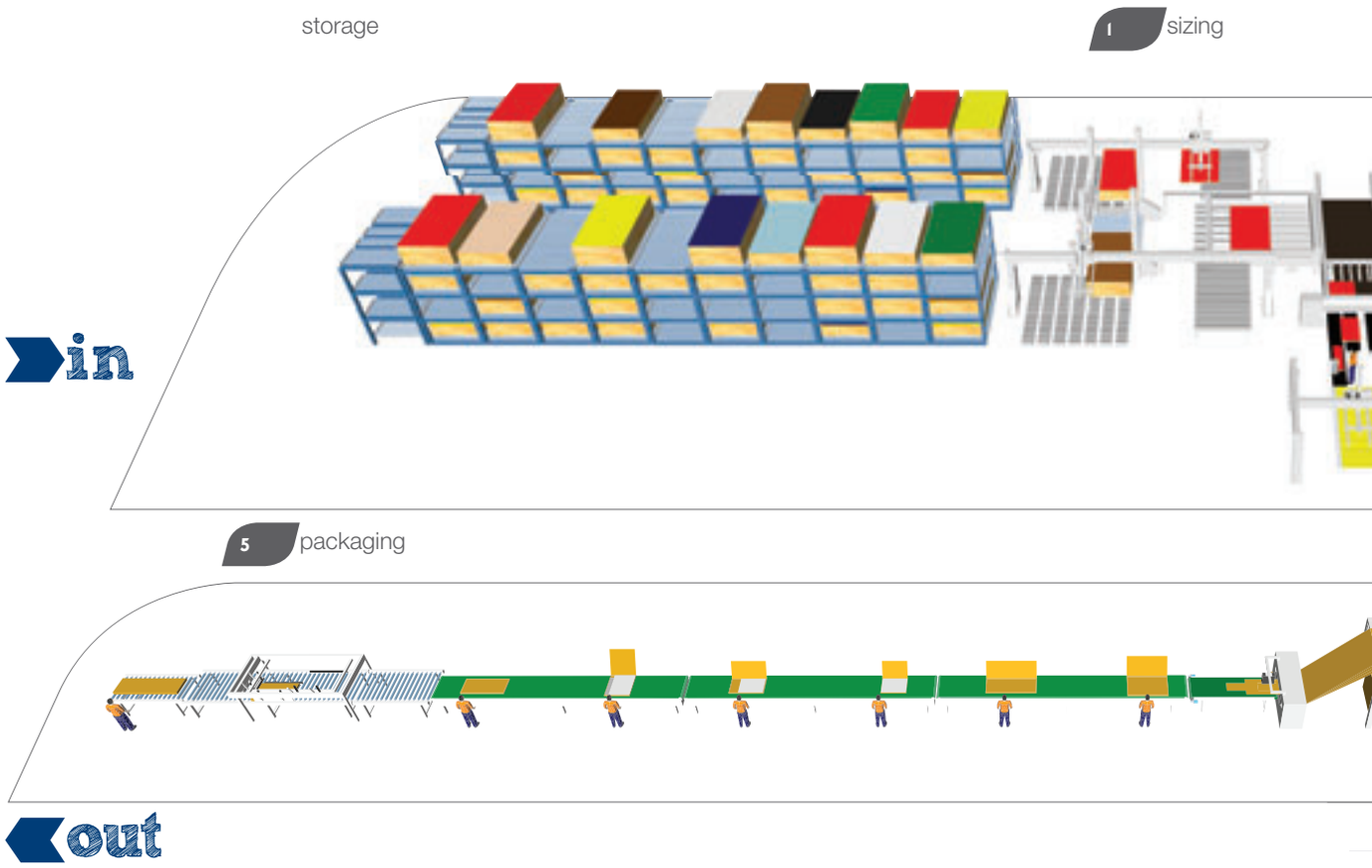

business furniture
production process

1 **gabbiani - mahros - sag**
sizing

stefani - mahros - sag
squaring-edgebanding
2A 2B **morbidelli**
cnc edgebanding

3 **morbidelli**
boring-inserting

4 **cpc**
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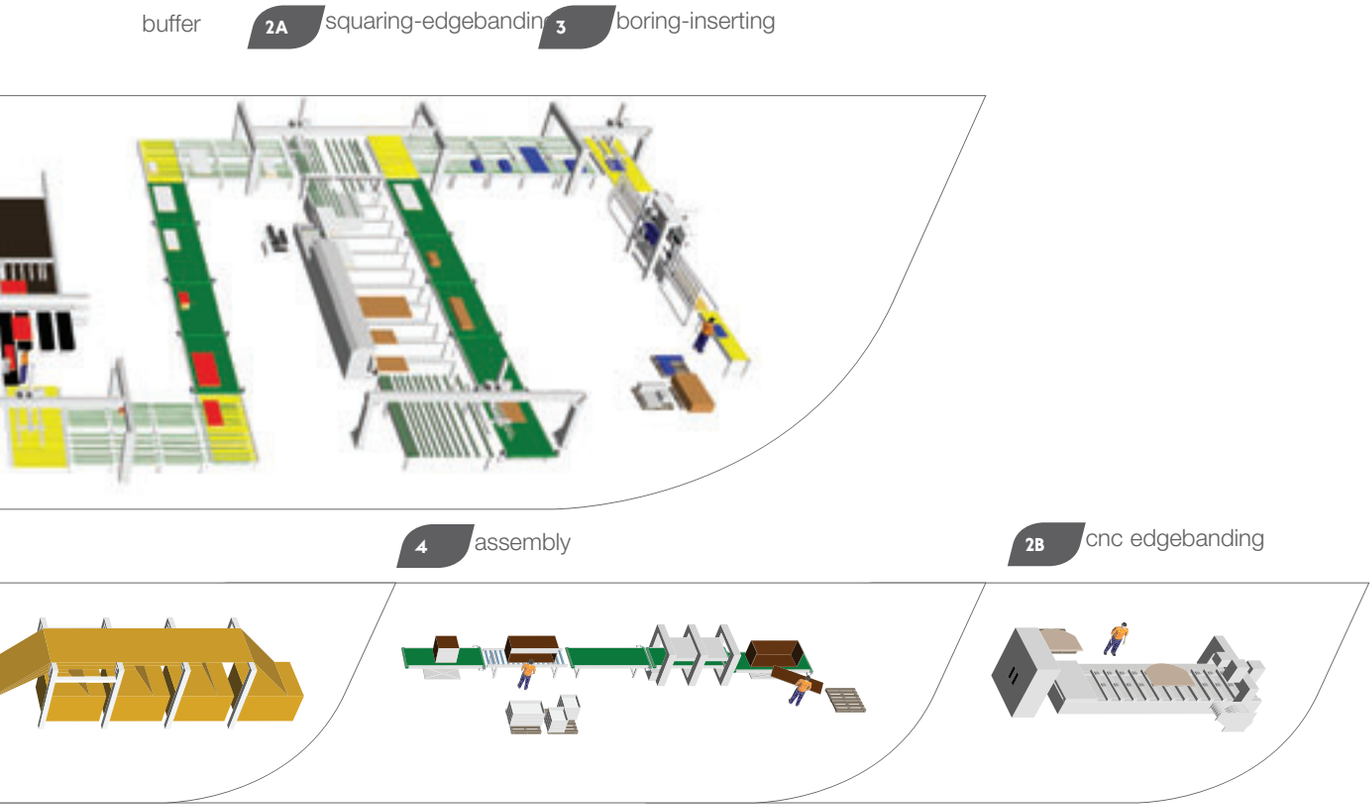
5 **cpc - robopac**
packaging



high-tech office furniture edgebanding solutions in batch one: the advantages of series production also for single orders

The business furniture production process involves single elements such as cabinets, dividing walls, desks, drawer units (generally assembled) and other furnishing accessories. There is a high degree of customisation, to create the exact setting required by the customer for his office.

"Production process featuring an integrated and flexible panel sizing, edgebanding and boring solution, managed by one supervisor machine and complete with other assempbly and packaging lines."

The main technologically advanced solutions for business furniture production process:
- single beam panel saw **Gabbiani Galaxy 3 with new Flexcut disposals**
- **new** batch one edgebanding system **Stefani Easy Order AZ**

Production integrated system main features:
- system capacity: **800 pieces/shift**
- staff required: **3 operators**
- surface area required: **2400 mq (including warehouse)**

business furniture
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production process and technology

flexcut 1/s e 1/d

new devices for GALAXY 3 transforming a single-blade panel saw into an angular machine

To satisfy the demands of small- and medium-sized enterprises which increasingly produce items in small batches, **Gabbiani has created a panel sizing solution that gives a company a competitive edge.** The **new FLEXCUT device** (versions 1/S and 1/D) with its **flexibility and productivity** can meet variable production requirements, often dictated by market trends, and at the same time maintains an optimum level of competitiveness in terms of a fast return on investment.

Flexcut, consisting of a mobile grippers unit whose stroke is completely independent of the main pusher, **allows the cutting axis of a single-blade panel saw 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 device 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.

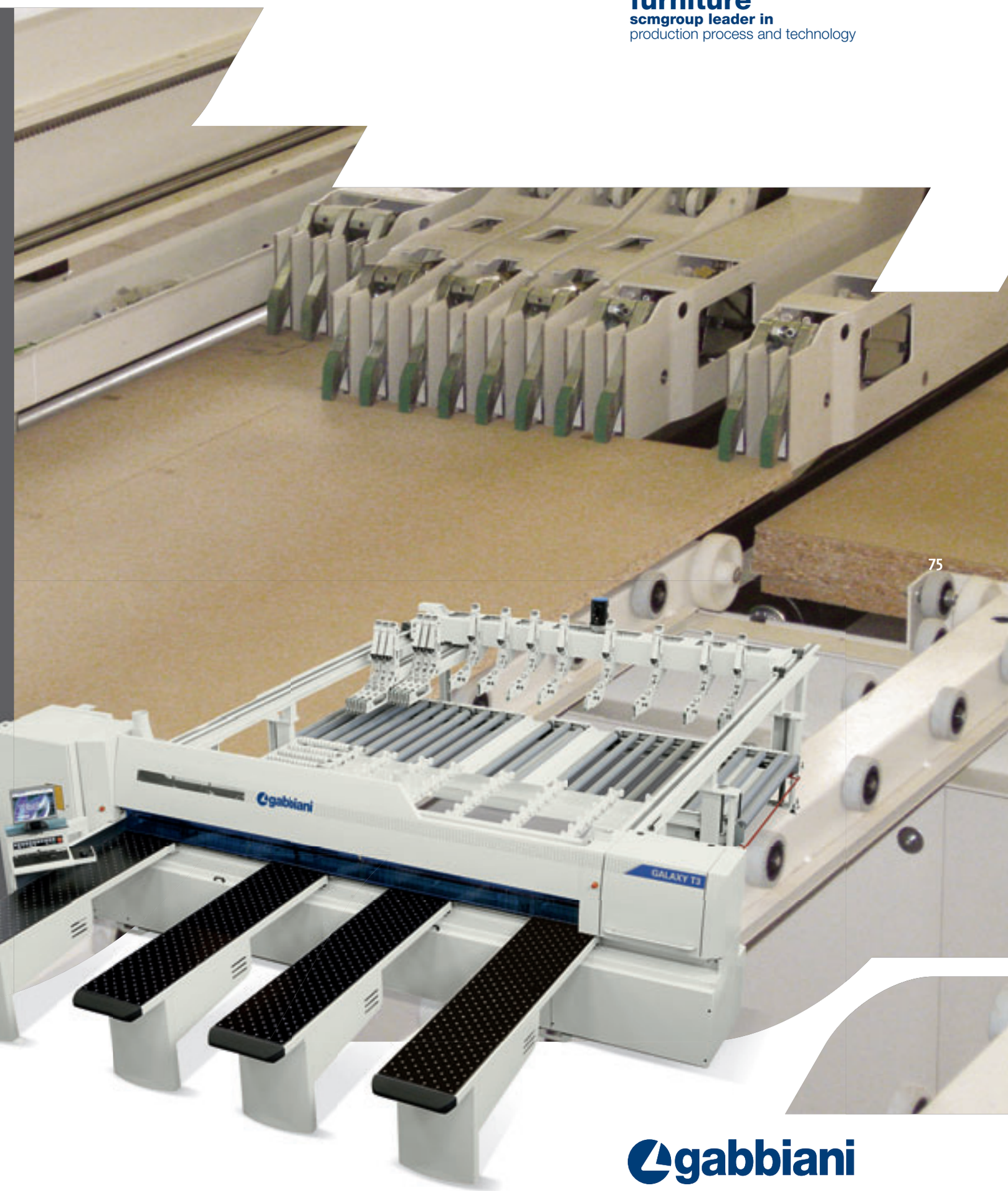
Versione 1S
In version 1/S the unit is fitted with a single gripper, giving two independent cutting axes at an extremely low price.

Versione 1D
In version 1/D extreme flexibility is achieved because the mobile unit is fitted with two grippers, one of which can be excluded, in this way guaranteeing a wide variability in the width of the strips that can be gripped.

Integration of the Flexcut device with other options, such as the turntable for automatic head-cutting and/or loading with suction cups, makes the new Galaxy 3 panel saw a high-tech machine aimed at specialist industrial customers seeking perfect quality panel sawing both for individual sheets and for packs. Gabbiani also presents the new design, the result of innovative technological design work, based on fifty years of experience in the industry and valuable tips from customers.

new!

business furniture
scmgroup leader in
production process and technology



gabbiani

easy order

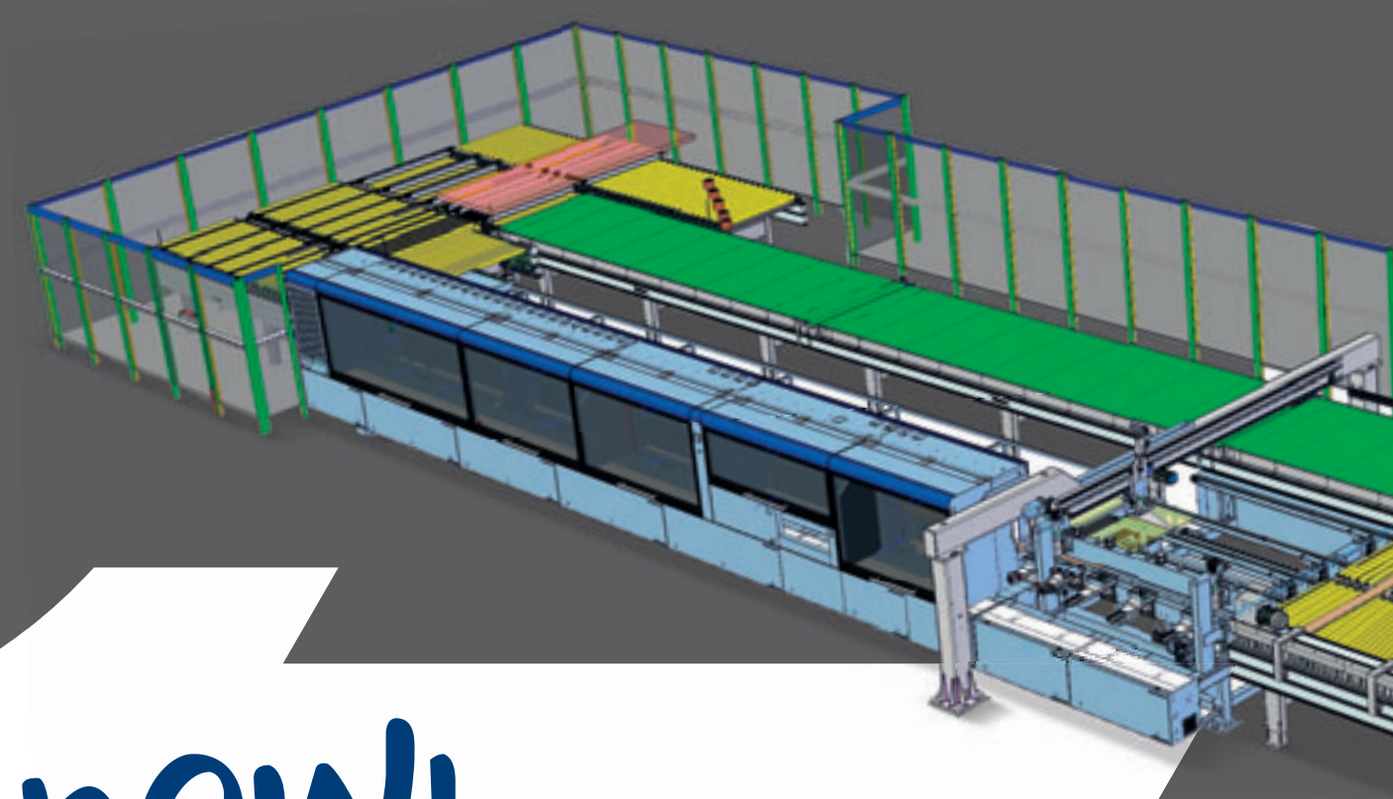
the new way to edgeband batch 1
without renouncing to remunerative production

The new edgebanding cell with Batch 1 machining mode is part of the Stefani EASY ORDER range based on technical solutions, level of investment, and return. The cell is an all-round innovation in furniture manufacture - a sector that is increasingly sensitive to flexible, differentiated production methods with high added value.

Easy Order AZ allows the 100% efficient machining of components for furniture items for every part of the home - kitchens, living rooms, sleeping areas, bathrooms, wardrobes and studies.

The advantages of the new Easy Order AZ:
- **immediate and economically advantageous production, with batches** ranging without distinction **from the single panel** to the damaged panel and the average **standard pack,** without the need for any production downtime in order to change the format, thickness, ornamentation and gluing quality (changes that may be very frequent within a single work shift)

- **correct and fast insertion of the panels in the cell,** thanks to the Side Finder technology that, via a display in the operator's area, shows how to position the panel so it can be correctly machined

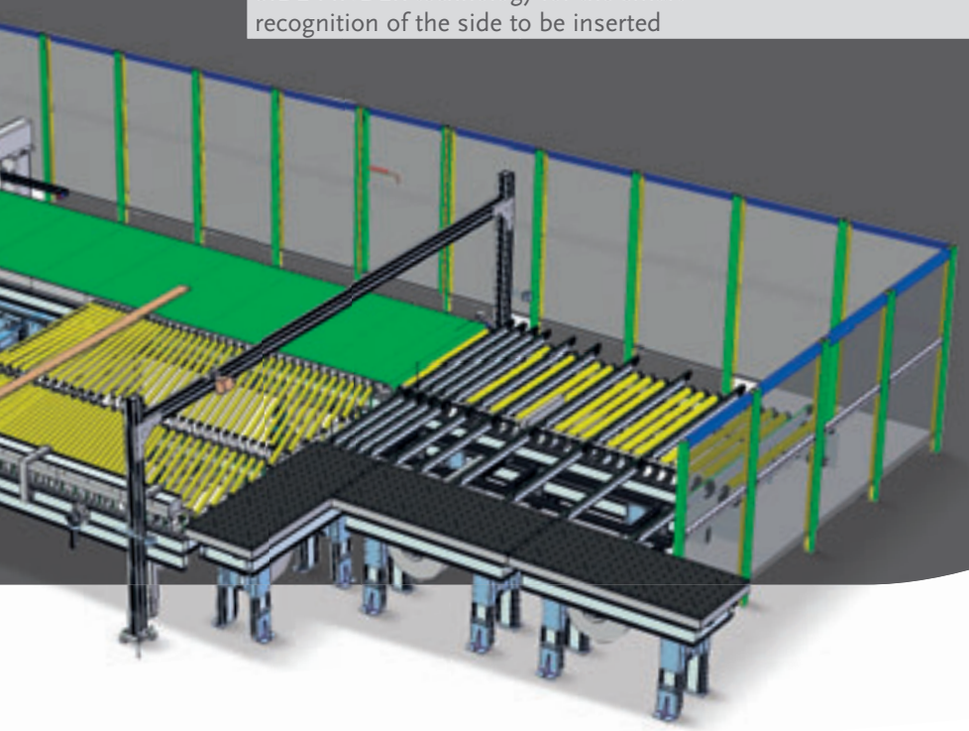


new!

- **immediate availability** (even on mobile devices) **of the machining information relating to each single panel,** in whatever part of the path they are in, thanks to the continuous tracking provided by the supervision system

Easy Order AZ also optimises the panel flow and movement, managing and synchronising the data sent to the company network. It allows you to choose the best machining quality, gluing quality and tool change flexibility within the minimum space and with a single operator, thereby optimising costs and ensuring remunerative production.

TECHNICAL DATA:		
Machinable dimensions with longitudinal transit (length x width – mm)	mm	3000x1200 max 3000x1200 max
Machinable dimensions with transversal transit (length x width – mm)	mm	1200x3000 max 130x250 min
Space required (m^2)		Ca 200
Number of operators		1
Productivity (finished panels per shift, with batch 1)		450
Machining operation with panel squaring		yes
Customised machining operation		yes
Possibility of qualitative checks on production		yes
SIDE FINDER technology for the smart recognition of the side to be inserted		yes



stefani

case history

technologies for business furniture production

mio dino

High technology office.

Collaboration between Scm Group and MioDino.

An emblem of made in Italy, with its capacity to seize the growth opportunities offered by the market, by the preservation of know-how between handicraft and industry, and by the use of new machining technology. This is **Industria mobili MioDino**, based in Summaga di Portogruaro (Venice). Founded in the Fifties by Dino Mio, today it is one of the most important and dynamic companies on the Italian and international scenario of design, production and sales of integrated office solutions, including furniture, partition walls, seats and accessories. The company is run by the third generation of the family, which also manages **the MioDino Interiors Design brand**.
The production activity of the group is well described by huge orders such as the **new premises of Region Lombardy in Milan** designed by Pei, Cobb Fredd & Partners, where MioDino will supply 9 thousand square meters of equipped partition walls and 3,200 workstations based on the "Carpe Diem" office furniture line.

Mr Paissan, can you describe your business very briefly?
«We process semifinished materials into finished products, manufacturing office furniture. We deal with laminated panels, finished with all kinds of decorations, and veneered particleboard, which obviously follows a different production route. We purchase laminated products from Italian and international suppliers, based on acquired orders. Each order has a bill of materials, which is referred to in all production stages. We deliver orders of any size, big or small, considering that design plays a key role in major orders, so we do not stick to our catalog, but we work ad-hoc to the style specifications submitted by customers. This capacity to provide customers exactly with what they are looking for and design is one of the keys to understand the success of our group. After all, we are still skillful craftsmen with the capacity to produce large volumes».

In your factory, you have plenty of Scm Group technology...
«This relationship started many years ago with a few Morbidelli machines. We are still using an Author 436S to drill small batches and special parts, an electronic 9-head "CN3" drilling machine, and another parallel axis drilling unit that can process sidesin one pass. To cut panels we have two Galaxy 115 saws by Gabbiani. A recent purchase were two powerful squaring-edging machines by Stefani, one of which has fully automated movements offering higher speeds in format changes and greater process flexibility altogether. These two machines have brought many benefits.
First of all, we can process any material, while in the past we had to switch between different lines for the application of Abs edges. n addition, we can machine parts both longitudinally and across: in two passes, the part is ready. For our furniture, we use edges from 0.4 to 5 millimeter thickness, predominantly made of Abs, except a 10 percent share of wooden edges. Also the process is very simple and "comfortable" for the
operator: he loads the workpieces, whose dimensions are detected automatically, and the edge is applied with excellent finishing quality. Processed by rounding and trimming units and butting heads, the part is delivered perfectly finished. We are also very keen on glue colors: we use white glue for white, ivory or pale laminates; dark or neutral glue for dark colors».

So, technology to offer quality and flexibility, if you allow a much abused definition...
«That's right. We deal with a product that changes every day. Tastes change, as well as needs and the characteristics of working environments. And we must be able to do everything».

by
Luca Rossetti

business furniture
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production process and technology

stefani

ProfessorPappagallo

The SCM Group innovation which creates an extremely simple relationship with technology - especially the most complex processes. **It's a special software that allows anyone, even without skills or experience, to carry out a machining program.**
A work companion, teacher and 24-hour assistant to make even the most complicated operation easy: just a few touches to the screen and one or two voice commands, and every problem is solved.

My name is **ProfessorPappagallo** and, if you use an SCM Group machine, I'll be your own personal consultant. I've been to many countries and I've met a lot of professionals just like you. I teach Woodworking Technologies and I'd like to make your job simpler, faster and more profitable. Travelling here and there, I always notice the same problems in the carpentry field. Don't worry - I'll be next to you, ready to lend a helping hand!

Any questions?

1. **I need to recruit some good workers as soon as possible, but I'm having trouble finding people with the right skills and experience. What can I do? Specialised personnel are no longer necessary:** I'm the one who guides all the user's operating manoeuvres. **I'm with you step-by-step,** from switch-on through to the most complex machining operations, to ensure the best results at all times.

2. **Can you help out with numerical control machines as well? I'd really like to get one, but I'm worried it'll be hard to use... With the most complex machines guaranteeing top performance levels,** I'm even handier! I've been called in by SCM Group to sort out problems and support customers in all the most important challenges!

3. **I don't have time to learn how to use every single machine, so I feel like I always have to depend on others. But what happens if my specialised workers are ill or change jobs?** My task is to make sure anyone can learn how to use a machine straight away. You won't have to depend on any single worker: with my help, every member of your staff will be fully able to stand in for those who are absent. Even if you were completely on your own, you'd get along just fine!

4. **Production times are tight and I need to find straightforward, surprise-free assistance and maintenance. Can you help me?** I'm a guarantee from this point of view as well. I'll be with you and your workers 24/7. The secret of a perfect job lies in good co-operation, with you as the leader, but supported by SCM GROUP's high technology and my round-the-clock help.

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See the interactive section on **scmgroup.com**

1 cutting

Panel dimensioning

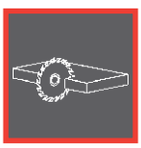
si 75OO l'invincibile
si 55O class
si 55O class
si 3OO class
si 4OO nova
si 3OO nova

Vertical panel sizing

verticut

Horizontal panel sizing

sigma impact p
sigma prima p
sigma impact
sigma prima



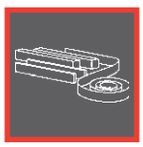
2 edge banding

Manual

m 8O
m 8O t

Automatic

olimpic s 1OOO
olimpic k 8OO
olimpic k 6OO
olimpic k 4OO
olimpic k 26O evo
olimpic k 13O



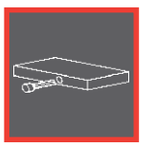
3 boring

Semiautomatic

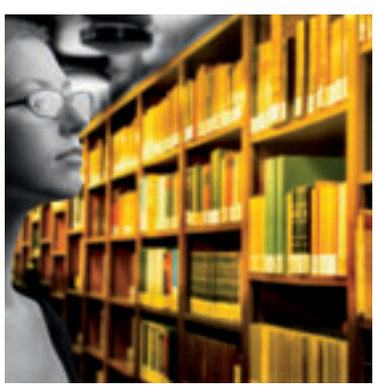
multitech plus
top plus
startech

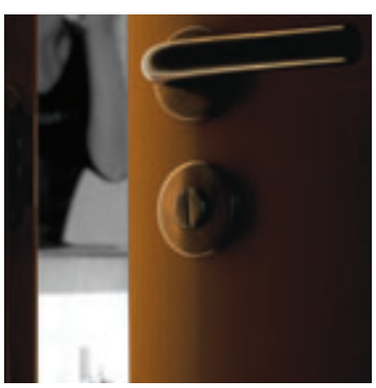
Automatic

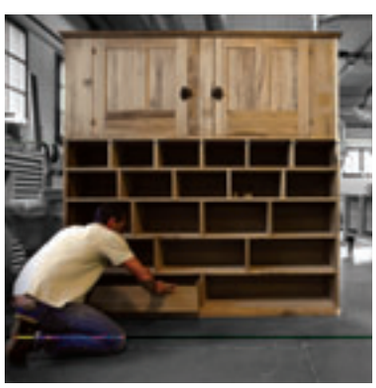
tech z5
tech z2
tech z1
cyflex f9OO
cyflex h8OO



performance
innovation
reliability







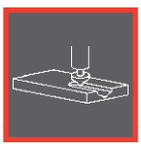
4 routing

Multifunctional table (nesting)

pratix z5
pratix z2
pratix n
pratix s

Table with bars

tech z5
tech z2
tech z1



5 assembling

assembling packaging

assembla

easy installation
user friendly

profiset

automatic planer – moulder

for working in small spaces
with maximum ergonomics and top quality finish

profiset 40

The working space in a workshop is never enough to get through all of the orders and machining requested, particularly in a highly flexible and varied market such as the current one. **Profiset 40 is the new automatic planer - moulder which makes compactness and ergonomics its strong points.**
The Profiset 40 comes as standard equipped with an idle roller in the outfeed table to guarantee effective feed and improved finish.
The **electronic version** of the machine is even more dynamic thanks to a single push-button for sequential automatic starting of the motors, automatic management of the working sections and feed speed control.

profiset 60

The Profiset 60 version is designed to be sturdy. **The new feed system using Cardan joints and gearboxes is the technological heart of this machine** providing higher productivity and even better finishes. Distinctive features include pneumatic pressure on the feed wheels and the inverter for continuous speed control.

Available in four different configurations to meet all moulding needs:
- with four spindles
- with five spindles
- with four spindles with universal shaft
- with five spindles with universal shaft

new!

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verticut

a verticut panel saw - sturdy as a big machine.

streamlined like a small one!

SCM proudly presents the new Verticut 60, the vertical panel saw for dynamic, developed panel cutting requirements, for those seeking a **versatile machine capable of operating in small spaces.**

sturdy and with the performance of a big machine

To suit all cutting requirements, Verticut 60 is available in two versions, one manual and one automatic with continuous action, having working dimensions: 4300 mm for horizontal width cutting and 2080 mm height cutting. Both versions fully benefit from the 2200 mm vertical cutting height with a working thickness of 60 mm to meet the most diverse machining needs. The standard kit includes:

- **Linear recirculating ball screw guides for horizontal and vertical sliding -** minimising operator effort on all moving units, for improved smoothness;
- **Independent scoring saw blade guaranteeing** optimum cutting quality on all types of surface;
- **Automatically movable supporting surface** making horizontal cutting safe and immediate without colliding with the worktable supporting elements;
- **Sliding support for narrow workpieces** provides total support for cutting narrow strips;

...compact like a small machine, the added value of 'linear guides'

I plus derivanti dallo scorrimento su guide lineari a ricircolo di sfere sono molteplici, di cui i principali:

- **the certainty of top quality, uniform results over time;**
- **great freedom of movement and comfort guaranteed** during cutting cycles.

new!

scm

tech z2

designed to provide top performance: **new standards of user-friendliness and performance**

user-friendly

Due to the new **"Professor Pappagallo"** system, the machine can be managed with unprecedented ease. The virtual tutor can guide **anyone** so that they can use the machine. Basically, it's like having an expert technician constantly present during production to guarantee the following three main advantages:

- The machining centre can be used for production **immediately**.
- The machining centre can even be used by **non-specialist** personnel
- Machine downtimes due to operator errors or oversights are reduced to **zero**.

Moreover, with the new worktable automatic positioning system using the "Autoset" unit, the following can be achieved:

- safe positioning, ruling out operator errors
- optimisation of operator production times
- excellent price/performance ratio.

performance

With worktable working lengths of up to 5200 mm, pendulum machining can be carried out both on doors and panels measuring up to 1300x2450 mm. Not forgetting that the panel transit width in 'Y' is 1550 mm.

TECH Z2 is also fitted with the Penta angle drive head for machining with 5 positioning axes.

new!

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tech z5

the 5-axis machining centre with support bars **using technology that allows infinite machining operations, just like... a prism!**

All of the best SCM technology for the benefit of its customers, giving a multi-function machine suitable for any machining requirement and with the best price/performance ratio on the market.
The technological heart of the TECH Z5 is **the "Prisma 5" five-axis electro-spindle which allows easy operation in small spaces without the risk of collisions.**
There is no limit on what can be done with the "Prisma 5" 5-axis machining head which, as an SCM patented solution, allows overall dimensions to be minimised in all machining directions. That means maximum practicality and flexibility for use by the operator.

Top class **SCM** technology:
- **Bumper protection:** the perfect combination for safety and productivity
- **TV worktables** with mechanical suction cup locking: for a definite safe result
- **Boring head** with up to 18 vertical and 8 horizontal spindles, plus an 'X' saw blade: for unparalleled machining performance
- **"TECPAD" remote control:** handy, simple and productive
- **Cantilever upright:** this unique and practical feature makes the machine unique
- **AutoSet:** support bars and suction cups automatically move to the correct position

Tech Z5 allows pendulum machining on both doors and panels measuring up to 1300x2450 mm due to worktable working lengths of up to 5200 mm. Last, but not least, in terms of performance: the panel transit width in 'Y' is 1550 mm.

new!

scm

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.**

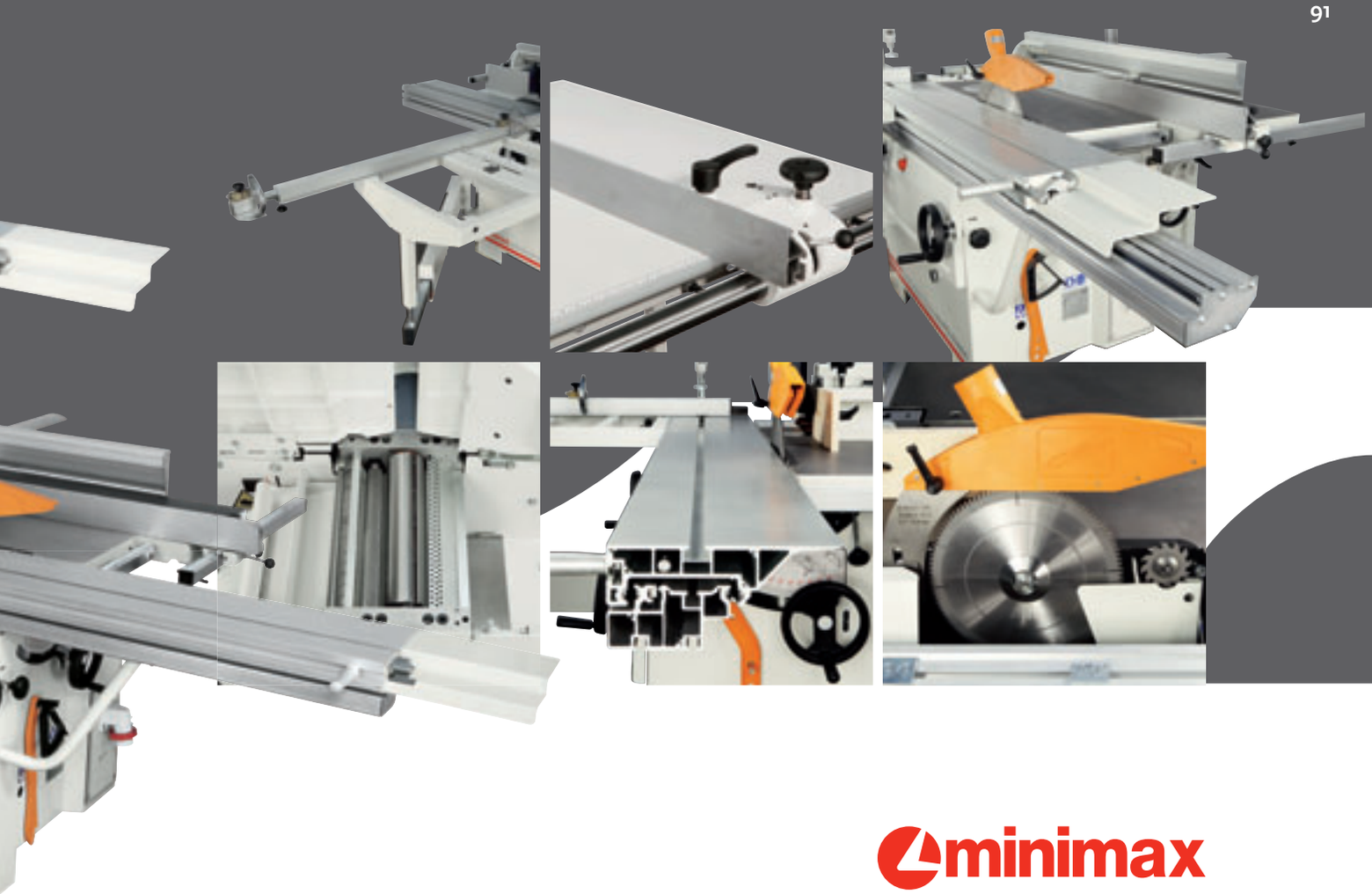
* = option for fs 41, fs 30 and sc 2 classic

new!

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



minimax

case history

machines for custom made interior furniture

arte veneziana

Three generations of Venetian eighteenth century reproduction pieces of furniture, wooden structure and "ennobling" with ground, engraved and silvered glass.

In short, true masterpieces. An ancient art for working glass, a constantly renewed experience; Scm Group technology for working wood.

If you have time to make a detour to Olmo di Martellago, just twenty or so kilometres from Venice, it is well worth ringing the doorbell of **Arte veneziana** (www.arteveneziana.com) because before "know how" and the desire to create something unique, lies surprise and admiration. Here - as in the company pay off - "the heart, mind, hands" are at home.
Ninety-nine percent of what is produced in Olmo di Martellago makes its way abroad: Primarily the United States, then more recently Russia, the Arab States, China and the rest of the world, first and foremost Europe of course. Contracts, yachts, homes for a fairly high-end market, seeking the sensational piece to be included as part of the furniture.

"Our clients are architects, interior designers", explains ***Alessandro Zanin.*** *"They saw our furniture and decide that that cupboard, that table, that wardrobe would be ideal in a certain setting and the orders come. Or they send us a drawing and we make them down to the finest detail. Over 90 percent of what we produce is specifically tailor-made for a customer. We have a 300 page catalogue that is often just a source of inspiration, and we work as real craftsmen/artists, one piece different from the other". "The interior of our products can be varnished, lacquered, finished with gold or silver leaf, lined in velvet or fine fabrics. The cabinet is now ready to be covered by our glass masters, carrying out every operation internally".*

An extremely fascinating work...
"... and very special. Our family is convinced that if we were not just a little crazy and a little artistic we would have never done a job like this! And anyway there's not just art, creativity and craftsmanship: you need to know how to plan, predict what will happen when the glass is glued. These are pieces of furniture that are used daily, not ornamental, therefore they must function perfectly".

How about wood technology?
"As you can imagine, precision is essential for us: we can not have any surprises when wood and glass are merged together. Therefore we choose machines that give us this result and the highest reliability. We have been working exclusively with the ***Scm Group*** *for the past five, six years: We started this path together and we are satisfied to the point that we became a "single brand" company! From traditional machines to the* ***Pratix*** *machining centre, from the calibrating machine* ***Sandya 5*** *to the edgebanding machine, all with the SCM mark. We feel comfortable, we find what we are looking for and having a single supplier is sometimes very useful".*

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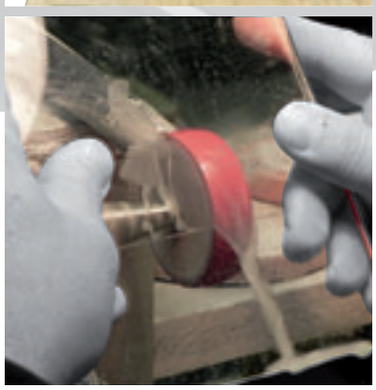
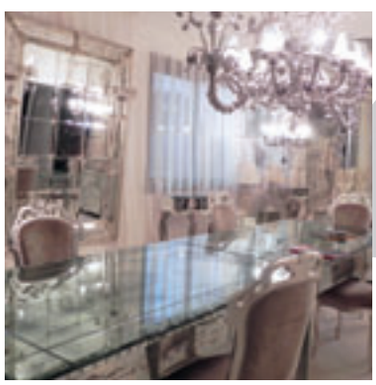
93

Alessandro Zanin





factory and showroom

scm

interview
scm setting safety standard
iuri betti

Iuri Betti – engineer, born in 1963 and with the Scm Group since 1995 – is the new chairman of the ISO committee which deals with the safety of wood processing machines. This international position is an important and prestigious appointment, demonstrating the wealth of human resources, skills, expertise and knowledge driving the success of the Scm Group.

Mr Betti is **"Product Liability"** Manager for the entire industrial group and among others, keeps technical departments up to date with international regulatory developments, and continually supervises activities. He also assists with all risk analysis of new machines. In other words, **he is the person that "combines" ideas with regulations that establish essential safety requirements**. This expertise goes hand in hand with his work for Italian, European and international organisations (TC142 for wood processing machines from WG1 to WG12, TC146 for packaging machines WG3 and WG9, TC151 for marble processing machines WG11), where he has put his experience to use over many years and helped draft regulations that guarantee the utmost safety for operators, defining "practices" for all manufacturers.

*"I have been a part of European working groups for many years, working on the draft of regulations for the **Machinery Directive** as regards wood processing, marble processing and packaging machines", Mr Betti told us. "This has led to a set of regulations, the well-known Machinery Directive, that has established extremely important standards. We are now at the third revision of the directive and perhaps the time has come to progress, and benchmark at a more extensive level. I thought it was important to take action so that within ISO, the most important international standardisation body, the SC4 subcommittee of the TC39 technical committee was re-established, which deals with regulations for wood processing machinery. This was necessary, as safety regulations are continually evolving and it is essential to take action so that rules are established which are as universal as possible and can be recognised and applied worldwide.*
*This means **giving manufacturers specific indications about choices to make**, so they can be certain their machines "conform to standards" in any country, and acting so that **operators have an "objective" safety level, that reduces all risks for their safety to a minimum".***
"I am particularly proud of this appointment – concluded Mr Betti – as my nomination was from German colleagues and was approved by various European and worldwide organisations".

As Chairman of the ISO committee, Mr Betti will work with the American standards' body, ANSI, that has been preparing dedicated standards specifically for numerical control machines : *"It is extremely important said Mr Betti – that this work does not create a new and different world, but integrates what we are doing on an international level, as far as possible. I will work so that the ISO committee I chair becomes a place that takes on board everyone's ideas and coordinates at a global level".*

And the outlook is excellent: in June, Mr Betti will chair the first meeting to discuss ISO standards for new generation edgebanding machines, to be held in Italy: *"The committee will define the general framework and guidelines of the standard which will then be prepared and explained by various working groups which I will be involved in not as an impartial Chairman, but as representative of the Scm Group and of all Italian industry".*

scmgroup

passion
technology
performance

scm
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scm
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celaschi
dmc
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sergiani
gabbiani
morbidelli
mahros
stefani
cpc
sag
scmgroup engineering
delmac engineering
scmfonderie
steelmec
hiteco
es
csr
Cms wood technology
Cms advanced materials technology
Brembana stone technology
Brembana glass technology
CmsPlast plastic technology
Tecnocut waterjet technology
Balestrini