Make

Special
Ligna 2015

BIESSEGROUP

01

The value of “know-how”

We are very honoured to open the first number of **Make** with an interview with the founder of our Group, **Giancarlo Selci**, an innovator who provided the furniture and creative industries with tools that are essential for the manufacturing of furnishings and design objects and facilitate the day-to-day work of all people who process wood and other materials all over the world.
A publication that tells the story of the Biesse Group through the experience of people who “live” it. A new way of discovering the company, the way of thinking of its leaders, the technological innovation that does it credit, the testimonies of the people who have chosen it to grow, the events that have marked it and the tales of the people who make it grow every day thanks to their skills and their passion.

The focus of this first number is the **4th Industrial Revolution** and the extremely high-performance solutions that can guarantee our clients all the advantages of digital manufacturing, in a “think**4**ward” perspective, to quote our motto.
A concrete example of this is **bSuite**, a collection of co-ordinated software programs characterised by an unparalleled ease of use and large integrated systems. Over 300 have already been installed all over the world.
We have chosen to shine a light on the virtuous combination of creativity, craftsmanship and technology. A combination that - thanks to training, too - can create unique design pieces and new growth opportunities for young people in the digital manufacturing era.
The success of the event organised by Biesse Group during Milan Design Week, with a special guest appearance by **Daniel Libeskind**, highlighted the importance of putting technology at the service of creatives. As Bruno Munari, one of the most important Italian architects of the 1900s, maintained, “the artist dreams of getting into a museum, the designer dreams of getting into the neighbourhood market”. This implies the need to produce more, reducing costs, whilst guaranteeing the market a quality and a reliability that Biesse’s machines, systems and software programs have always ensured.

Creativity, production, manufacturing, growth: these are the reasons for Make. To stress once again the value of “knowing how” and of “knowing how to pass on that know-how” that inspires the Biesse Group’s men and the women to always “do” better.

Raphaël Prati
Marketing and Communications Director
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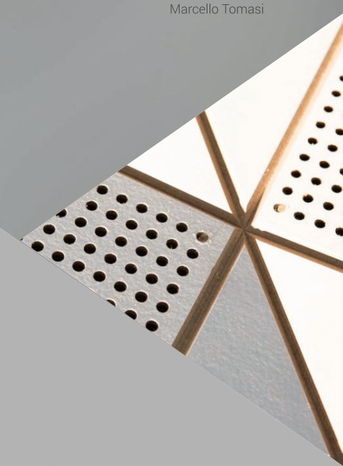
Woodskin

Cover photo:
Leo Torri

Below:
Marcello Tomasi



Who

Giancarlo Selci

Founder

Mr Selci, next year you will celebrate your eightieth birthday...
«... and there is still so much that I have left to do. That's the way I am; it is in my nature to carry on, do things... Today things are more difficult because, luckily, Biesse is much bigger than it used to be: we have many technical departments and, for someone like me, who loves tinkering with projects, going into the workshop, "breathe" the smell of the factory, it is certainly more demanding. Particularly because I am getting on!
I am in love with my company, maybe even more so in these recent, challenging years. When, at a given time I decided to go back to the fray I was only thinking about Biesse, about the three thousand families that depend on the company. Then I decided to go back to help out and do whatever I could, on the back of my experience. I took the responsibility of taking over the helm once again, even if I knew it would be a tall challenge... It paid off. We worked well and we continue to innovate...».

Mr. Selci, which have been your best ideas, the inventions that you like to look back on fondly?
«There have been many, luckily, and maybe - today I can admit it - I have been unable to exploit them as well as I could have. I tell you why. At the beginning of Biesse's history, electrospindles were only manufactured using cast iron, then machined, and gosh, were they heavy... at some point time I had the idea of manufacturing them using an extruded aluminium profile. You cut it to length, milled the housing for the stator then drilled some holes and what not... and let's not even talk about the lightness of the entire thing. Unfortunately I did not patent the idea. I made the same mistake when, always as a first, I thought of using the same extrusion process for machine tops. Even in this case I did not think about protecting myself with a patent. And again: I invented the independent spindle head,once again without patenting it. We were the first to mount racks instead of ball screws... ideas that I underestimated at the time, also because we had so many of them... nowadays people would patent even a sheet of paper and whenever you want to develop a new idea you need to spend weeks analysing what you can and can't do. It almost looks like today innovation is something that is only the prerogative of lawyers and experts who fill Patent Offices!».

And so the passion cools off?
«Never! If I did not have the same passion, I would have a lie-in every morning! Clearly, the passing of time cools off some emotions, but luckily I am always filled with the desire to do so many things and no one can take my enthusiasm away. Even if this is not what is missing: today, I would like to stress it again, we have to deal with much more complex realities that require efficient and effective organisations. However, people must learn to talk more, to communicate directly with each other, to be more curious about what their colleagues in other offices are doing, to go and see things first hand, ask, learn, share. We cannot just send e-mails. We need to communicate...
Thinking about it, it is not easy to keep the same level of passion in a Country where hundreds and hundreds of companies shut every day».

And what about Biesse? What roads are you going to tread in future?
«We will keep on doing our job, even better than before. We will focus even more on plants for large production capabilities. We are also trying to ensure that processing centres are tools capable of giving craftspeople the possibility of creating beauty more easily, of doing more and better things.
We want to strengthen our presence in markets all over the word with the same ability to deliver innovation, just like we have done in recent years with our software programs, making sure that everybody can manage our machines with the utmost ease. I dare to say that today we sell Biesse machines not only because they are beautiful, but also because they have an interface that they can be programmed with, which becomes easier to use with every day that passes».

And what is still left to do in Biesse?
«I would like to answer you by telling you what I would very much like to do, on a personal basis: start again from scratch! Have 50 hectares and build a large, even more intelligent factory, a brand-new plant where each process step is optimised. Because today very high costs come from logistics, from inefficiencies, from having to deal with manufacturing plants that were added on a piecemeal basis, when new space needed to be found. I would really like to start everything from scratch... we would produce with the same quality but with a lower cost basis: we would have mechanical processing to one side, assembly to the other, shuttles that link all departments according to a well thought-out production logic, in line with the Lean Production approach that we adopted years ago and that has enabled us to reduce waste to produce more and better. And then being able to focus on research, innovation, on what to do in order to enable the users of our machines to do even more and better things; maybe hire a dozen or so of new engineers to realise the many ideas that are still going through our heads...».

Excerpt from an interview by Luca Rossetti for Xylon

Giancarlo Selci

Where

biesse.com/magazine

16 Mar

Fimma

Bento Gonçalves (RS), Brazil
16-20 March 2015

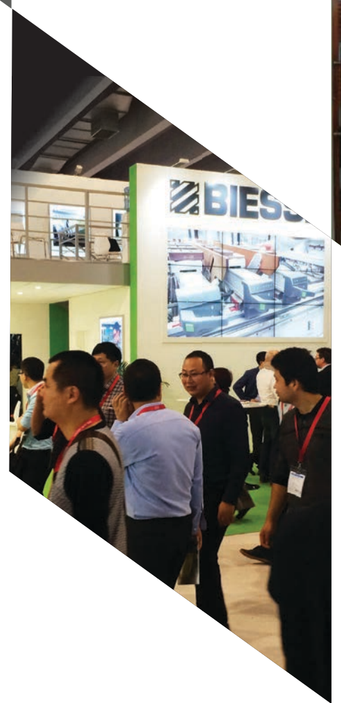
In collaboration with its dealers Gati, Dancamac and Sti Technology, in an area spanning 800 square meters, Biesse presented a range of solutions for the furniture industry, with a focus on high technological content. The goal: to reiterate the absolute necessity of making strategic business choices in terms of more efficient production and technologically advanced solutions.

28 Mar

Interzum

Guangzhou, China
28-31 March 2015

«We were able to target machines and technologies tailored for the Chinese market, focusing our efforts on innovative products designed to meet the demand for high volumes, as well as the growing need for flexibility». This is Biesse's strategy in China, as explained by **Federico Broccoli**, director of subsidiaries for Biesse Group. He also introduced **Peter Lin**, the new commercial director of Biesse China, who took up the role last March.



04 Mar

Eurobois

Lyon, France
4-7 March 2015

«A strong sign of confidence» commented **Laurent Mazies**, director of Biesse France, in reference to the company's successful participation in Eurobois, the biennial trade fair for machinery and wood components. «A key reference point for all operators in the sector, and a unique platform for the latest market trends».

18 Mar

Open House

Sydney, Australia
18-20 March 2015

A full immersion in the world of Biesse machinery and technology at the Open House organized by **Biesse Australia & New Zealand**. With more than 100 tons of machinery on display, live demos and all the latest industry news, this major event was focused on customers and dealers, and saw the opening of the new showroom.

Prossimi appuntamenti

Opening Kuala Lampur
Puchong, Malesia 3-5 Giugno 2015

AWFS
Las Vegas, USA 22-25 Luglio 2015

Inside Biesse
Pesaro, Italia 15-17 Ottobre 2015

Apertura del più grande showroom di macchine per legno, vetro e pietra del Nord America
Charlotte, USA, Ottobre 2015

Think4ward

Ligna, Hall 25
May 11-15 2015
Hannover, Germany

Make

Machines on display and related demo

CNC machines:

01 / Rover K 1532
Wood element kitchen door with core panel, MDF component with routing and boring, MDF routed kitchen door.

02 / Rover B 1650 Conf. 5
Sash with slot and tenon joint of 78 mm thickness, sash squaring on 78 mm thickness, wood element with 5 axis sanding machining, internal door.

03 / Rover B 1967 Edge
Shaped panels edgebanding with thick and thin tape, highlighting the accuracy of internal and external butt joint.

04 / Rover A 1643 Edge
Shaped panels edgebanding with thick and thin tape, highlighting the accuracy of internal and external butt joint.

05 / Rover A 1632
Small ball by 5 axis, internal door (just on request), window arch of 78 mm thickness.

06 / Rover B 2231 FT
Chipboard cabinet nesting.
Nesting of MDF doors with internal routings.
Raw chipboard upholstery parts nesting using the presser rollers.

07 / Rover A 1536 FT
Chipboard cabinet nesting.
Nesting of MDF doors with internal routings.

08 / Rover C 1648
Wood sash with slot and tenon joint of 92 mm, seat frame element, part with 5 axis interpolating machining.

09 / Winline One
Linear and arched elements of 78 mm thickness window with plug-tec joint.

Edgebanding machines:

10 / Akron 1440
Edgebander with both AFS technology and EVA. It's able to process thin, thick edges and solid wood strips.

11 / Akron 1330
The right solution to process thin, thick edges and solid wood strips.

12 / Akron 1320
Suggested for thin edges application.

13 / Stream B MDS 2.0 con Winner
Single sided edgebading machine with automatic squaring device This solution allows to process different sizes and colours of panels in the most flexible way. It's possible to process different thickness of edge with automatic adjustment of the working units in real time. The Winner Station at the end of the line allows perfect panels recirculation

14 / Stream A
Edgebander with both AFS technology and EVA. It's able to process thin, thick edges and solid wood strips.

Calibrating and sanding machines:

15 / Opera 7
Sanding of veneered panels.
Sanding of veneered panels with veneered tape.
Gloss finishing of lacquered panels.

16 / Opera 5
Sanding of veneered panels.
Sanding of veneered panels with veneered tape.
Matt finishing of open pore lacquered panels.

17 / Opera R
Sanding of recessed flat component.
Sanding of cabinet doors (cross grain removal).

Boring and inserting machines:

18 / Brema Vektor 15 CS
Flexible cycle for boring, routing, glue and dowel inserting on panels with different dimensions.

19 / Brema Eko 902
Flexible cycle for boring, glue and dowel inserting with panel displacement by grippers

20 / Brema Eko 2.1
Flexible cycle for boring and routing with panel displacement by grippers.

21 / Insider M
Flexible boring cycle on panels with different dimensions.

22 / Skipper 130
Boring, routing and dowel inserting.

Panel saws:

23 / Selco SK 4 Winstore K3 working cell
Panel saw with integrated Winstore K3.
Feeding of a panel and execution of a extremely complex cutting pattern in short time using the Twin Pusher system

24 / Selco WNTR 730
Panel saw automatically fed by Winstore K1.
Execution of e very complex pattern highlighting the machine's speed characteristics, the Twin Pusher and the turning station.
Demonstration of the efficiency of the dust extraction making very narrow trims in a front loaded stack of panels.

25 / Selco WN 610 with X Feeder L
Panel saw with fully integrated feeding system X Feeder L to label end load each panel while the Twin Pusher is cross cutting the last strip.
Demonstration of sizing a pressure sensitive material (honeycomb) using specific devices.

Flexible cutting centre for Batch-one:

26 / Nextstep
Flexible cutting of panels for batch-one process by using two electro-spindles.

Working cells:

27 / Winstore -Selco WNTR 730 TP - Rover B 2231 FT working cell
Winstore 3D board storage system including the following features: single or multiple board feeding to Selco saw; single board feeding to Biesse Rover machining centre.

28 / Winstore K2 and Nextstep working cell
Winstore 3D board storage system including the following feature: single board feeding to Nextstep nesting machining centre

Software:

29 / BiesseWorks
Software programming demonstration for Biesse machines, directly on machine console .

30 / bSuite
3D programming samples.

31 / Optiplanning
Software demonstration on automatic cutting list generation starting from requested articles and available materials.

Biesse at Ligna 2015

3700 — m² of exhibiting space

100 — linear meters of integrated production systems

30 — technologies for processing panels and solid wood

120 — m² dedicated to software, to design without limits

Batch-One

01 Automatic magazine Winstore

02 Flexible cutting NextStep

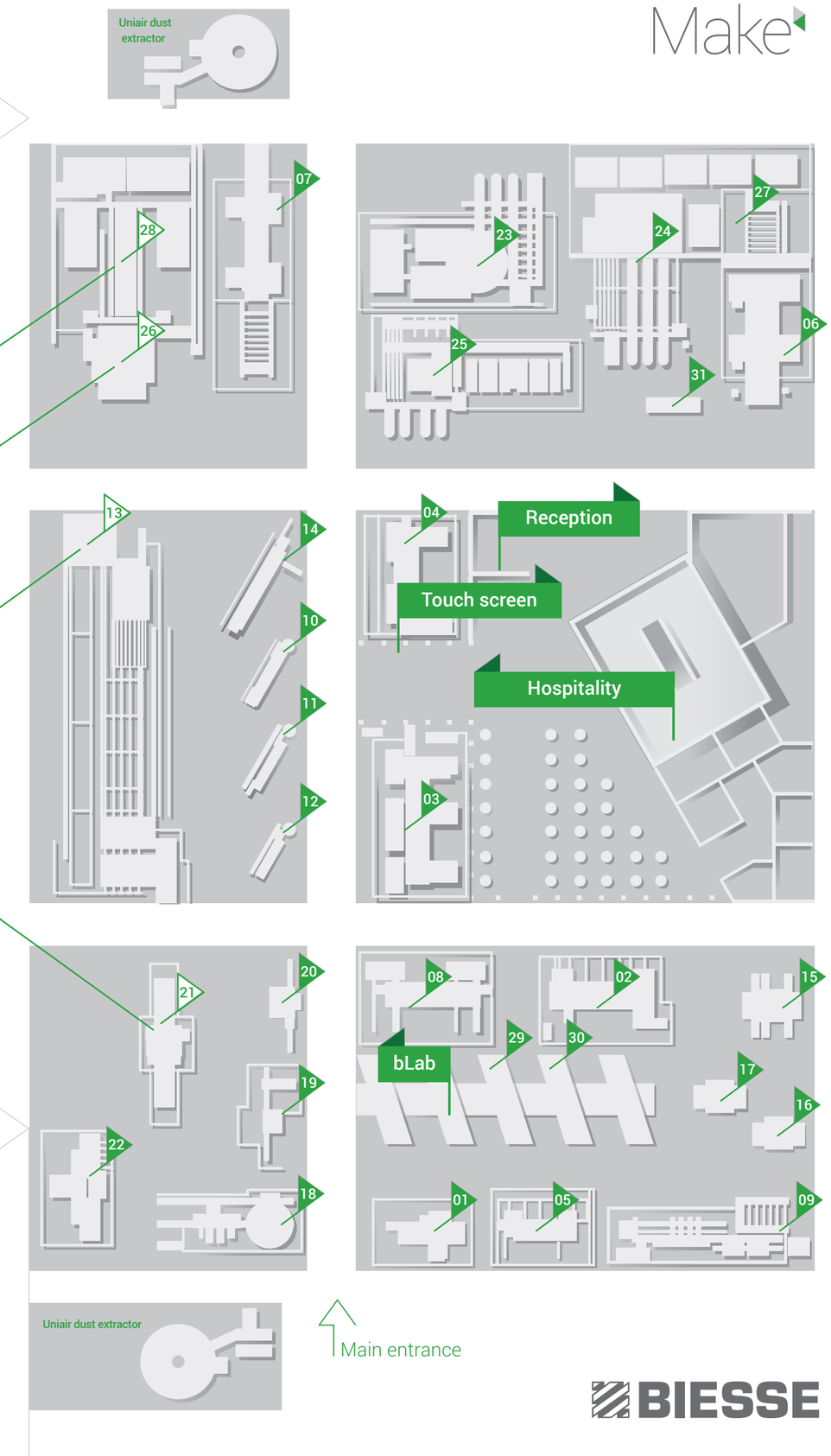
03 Multilevel Buffer

04 Flexible edgebanding Stream MDS

05 Sorting system

06 Flexible drilling Insider M

07 Automatic integration Software bProcess



BIESSE

In

When competitiveness means optimising production

The market demands

a change in production processes, allowing manufacturers to accept the highest number of orders possible, whilst maintaining high quality standards, high rates of productivity, and prompt, assured delivery.

Biesse meets these requirements

with cutting-edge technological solutions which enhance and support technical expertise as well as process and material knowledge.

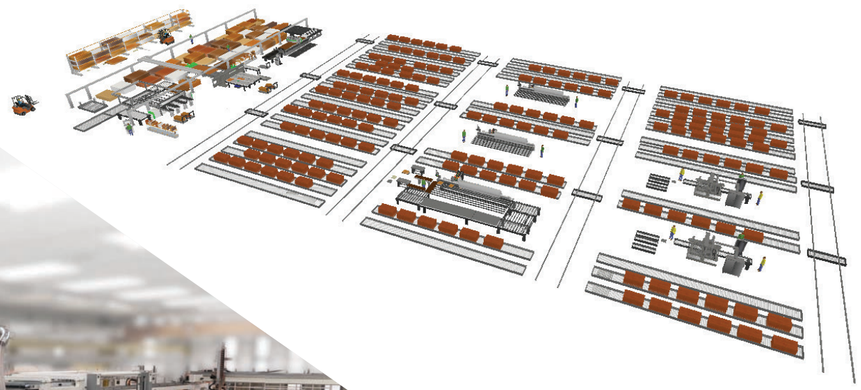
Biesse is driven by the constant pursuit of innovation and continuous improvement, which enables the company to respond successfully to the needs of customers who wish to diversify production of small lots of panels, designing and implementing high-quality technological solutions for integrated manufacturing processes and innovative automation systems.

- ☑ **Optimising production**
- ☑ **Production efficiency**
- ☑ **High levels of flexibility**
- ☑ **Total integration**

Total flexibility for small batches

The Batch-One process allows the user to process different panels in sequence according to the specific production requirements, with zero set-up time and maximum production optimisation.

The three new Batch-One process developments include the Stream B MDS unilateral squaring and edgebanding machine, which is ideal for small batches thanks to its exceptional flexibility, the new NextStep flexible beam saw with double router, which guarantees the perfect squaring of the component, and the Insider M flexible boring machine, which is capable of simultaneously processing all the faces of the panel in a single passage.



Fully-integrated factory for flexible and Batch-One machining operations

How

Biesse and the Industrial Revolution 4.0

In the early '80s in Biesse, machines were supported by electronic devices consisting of simple control systems, where the operator had to wrestle with indirect programming. Through text files, the movements of the machine were described, and the effect of this was the desired machining operation of the piece in question.

Over the years, the evolution of machinery and control systems has begun to offer an increasingly rich range of high-performance features (which has unfortunately led to increased complexity in managing these systems), whilst programming tools have remained substantially unchanged.

As such, in the '90s a demand for abstraction emerged, making the shift from machine programming to a part programming through a more comfortable and visual description process. And **CAD/CAM** was born, greatly simplifying the way in which the piece and the machining operations were described. The new software translated the desired transformation processes into machine operations and movements. While these tools certainly constituted an improvement, many activities nonetheless remained the responsibility of the operator, who needed to know, learn and organise, experiment...

For some years Biesse has invested heavily in software, with the primary objective of bringing the machine down to a more accessible, human level, as far as possible rendering the complexity of using and programming machines more simple, interpreting the concepts of **Factory 4.0** and adopting these fully. A few examples of the ways in which these concepts have been interested include the digitization of the machines and pieces to be machined, allowing for the analysis of results before the actual work begins, through a dynamic simulation, and the management of the production process via information shared in real time between various machines in a factory, which work together to create the desired objects.

Digitalisation and simulation

The economic crisis which has dominated the last decade has awoken one of the worst phantoms that our production system could possibly imagine - the fragmentation of demand, a decline in volumes and excessive product customisation leading to increased costs: the so-called "**Batch-One**". Producing pieces which are often unique, with tools and processes from the industrial environment of the '90s and early 2000s, is not sustainable.

For this reason, Biesse has developed programming systems such as **bSolid**, which allow users to graphically describe what they want to achieve and to automate almost 100% of the design, engineering and optimization of the product, through the use of the most cutting-edge modern technologies, developed on the basis of in-depth studies in the field of operations research and artificial intelligence.

Heavy investments in the field of extrapolation of dynamic control logics for machines, computer graphics, mathematics and applied physics have led to the creation of a tool that can simulate what will happen in the machines with astonishing precision. The machine then works to achieve the end result, the object that the user has conceived and designed. Through a 3D simulation based on the construction drawings of the machine, the working process movements are closely monitored and checked for consistency, using these sophisticated control systems. At the same time, the user can view the piece as it slowly takes shape as the machine works, until the finished result is obtained, checking the accuracy of the piece before it has physically been produced.
Increased confidence in using machines is an additional result of these developments; the entire machining process is performed on a digital model of the component, using the same software that will be used on the real piece.
As a result, users can engineer a product in the most minute detail, before making it for real. Through this technology, Biesse has therefore concretely implemented one of the key foundations of the **Industrial Revolution 4.0**.

Controlling the factory

Production management is key, both for small artisan producers and for large companies. To date, given the prevailing logic of "Batch-One", it is hard to even consider a production time of more than a few hours. Efficiency is king, even in identifying inefficiencies. The factory of the future is "intelligent" according to this definition.

To this end, Biesse has developed **bProcess**: a software package equipped with smart tools for product engineering through automatic integration between machines. Machines in a factory which control the various stages of machining operations, and are interconnected, can register with bProcess, providing information on their working "ability", literally saying to the factory: «Here's what I can do for you».

Based on incoming orders, product components that need to be made (taken from a previously-created archive using design systems of which bSolid is an example), the software then distributes the workload to the machines according to their working "attitudes". Each phase of the production process is controlled and monitored using automatic part recognition systems (labels with bar codes, RFID, etc.).

Every operation completed by the machines is communicated and recorded by bProcess in real-time, thus allowing the user to view the production status, to react to any unexpected events, and to identify any inefficiencies in the production process at any given time.

The attention to detail in engineering of this software has been exceptional: a network cable, a configuration and a new machine are ready to join the "team" in my digital factory, and are immediately integrated into the working context.

Filippo Bostrenghi
Software Director

Roberto Astolfi
Automation Manager

bSuite

bSolid is a 3D cad cam software application that supports the performance of any processing operation thanks to the use of vertical modules designed for specific production processes.

For the doors and windows market, Biesse has developed **bWindows**, the bSuite plug-in for door and window frame design that provides unparalleled capabilities.

For Nesting processes, Biesse has developed **bNest**, the bSuite plug-in that allows the user to easily organise their nesting projects while at the same time reducing material consumption and processing times.

For the design of the shaped edgebanding process, the company developed **bEdge**, the bSuite plug-in that exploits the suite's design and simulation capabilities to easily create the edges of even the most complex components.

bCabinet is the bSuite plug-in that ensures complete control and optimisation of the furniture design and production process, thus allowing excellent efficiency levels to be obtained.

Efficiency is fundamental, even in terms of identifying any inefficiencies. That's why Biesse has developed **bProcess**: a software package featuring smart product engineering tools with automatic machine integration.

bSolid wins the **"Innovation Awards"** at Eurobois 2015

biesse.com/bsuite

Biesse Group @ Milan Design Week

Design and technology in the era of digital production

Design & Digital Manufacturing

Location: **Gothic Cloister at the church of San Maurizio al Monastero Maggiore**
In Milan on Friday 17 April, in the Gothic Cloister at the church of San Maurizio al Monastero Maggiore in Milan, the "**Design & Digital Manufacturing**" fringe event took place, attracting the attention of a varied international audience, and gaining interest from small and large companies, architects and designers, students, journalists and passers-by. The evening was a showcase of the many facets of creativity - the ability to produce without being constrained by limits thanks to technological innovations, to create new design objects, driven by the desire to play and experiment with new concepts, and to seek out new training partnerships, with a view to fostering the talent of tomorrow.

Against the backdrop of Milan Design Week, **Biesse Group, FIAM Italia** and **Enaip** organised a round table to examine excellent examples of creativity, technology, craftsmanship and training. After **Antonio Bernasconi** (Director of Enaip Lombardia) opened the discussion, **Raphaël Prati** (Marketing and Communications Director for Biesse Group) introduced **Daniel Libeskind**, an architect of international acclaim, who stressed the beneficial role of technology in creativity, hailing it as an essential element in creating without limits and manufacturing any object dreamt up by a designer's fertile mind, on a large scale.

In this respect, **Vittorio Livi** (Chairman of FIAM Italia), "an enlightened master glassmaker", proudly told the audience his story, including how he managed to combine the craftsmanship of a master glassmaker with industrial processes. The vision of a dream, the art of in-depth know-how gained from years of work on the floor, as he likes to point out - or in other words, to have started from nothing, and, flanked by a good teacher who laid the foundations in training, to one day go on to create the world's first furniture in curved glass. Livi then handed over to another illustrious Pesaro native, **Giancarlo Selci** (Founder of Biesse Group), presenting him as visionary creator of technological solutions, of machines that have allowed us to create design objects, producing high-quality pieces with unprecedented production times. Flints confirmed that the Group's technologies and software products are designed to be at the service of those who work with glass and wood across the world, simplifying tasks for the operator and rendering numerical control machines accessible to a non-specialist audience, allowing customers to produce more in less time.

Paolo Molteni (Cantù Made Italia), who designed and manufactured the K14 kitchen-sculpture shown inside the Colonnade, talked about craftsmanship in the field of wood furniture, focusing on the concept of "replicability" of a work of design. A concept that recalls a thought of Bruno Munari. Without setting the artist against the designer, but rather exalting both of them, he maintained that "the dream of the artist is that of getting into a museum, the dream of a designer is that of getting into the neighbourhood market". This implies the need to produce more whilst reducing costs, guaranteeing quality and replicability to the market, thanks to technological innovation.

Valentina Aprea (Councillor for Education, Training and Employment for the Lombardy Region) and **Paola Vacchina** (President of Enaip and FORMA, the national association of vocational training bodies) then took the floor, stressing how vocational training is important for providing qualified services to train young people and to find these young people job placements, to train adults, to support people who are having trouble problem finding a job, and to promote the development of organisations and enterprises - once again through training. Also present at the round table was **Luca Delfinetti** (Councillor for Economic Activities in the Cantù region), who confirmed the next edition of the Cantù and On festival of wood in September. **Luigi Bobba** (Under-secretary of the Ministry of Labour and Social Policy) reminded those present of that the government, among other acts, has expressed the will to provide concrete support to uniting the skills possessed by young people and the skills required by the production system.

On closing a round table that had been humming with stories and future plans with regard to design and technology, Raphaël Prati referred to the evidence gathered, emphasizing the value of a synergy between worlds that at first sight may seem far apart. The network connecting design, craftsmanship, technology and training can create a virtuous circle that enhances creativity and offers actual growth opportunities to the young and to companies that are capable of seizing the advantages of the digital manufacturing era - opportunities that are already realities in two design and furniture excellence districts, such as those of Cantù and Pesaro, so well-represented at the round table.

Following the meeting, 50 young aspiring chefs from Enaip demonstrated the quality of their vocational training by staging a dinner and drinks party, with exciting interpretations of traditional local products at tasting corners dotted around the venue, and the presentation of a menu linked to the Expo 2015 clusters.

Digital Lithic Design & Energy For Creativity

Location: **Università degli studi di Milano**
It's a collection of marble works made with machinery of the latest generation. Its creator, in collaboration with Marmomacc, is the designer **Raffaello Galiotto,** maker of Bicefalo, produced with Intermac CNC Master 850 and with Diamut tools. A demonstration of how technology, oriented by creativity and applied to marble, generates unusual expressive and constructive possibilities.

Self-Assembly Furniture

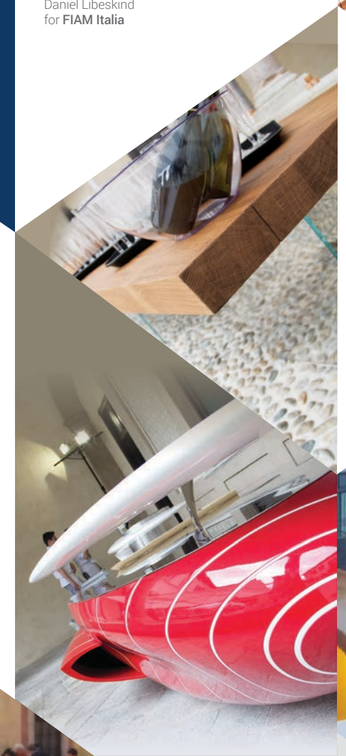
Location: **Ventura Lambrate**
Through a collaboration between MIT's Self-Assembly Lab and Wood-Skin S.r.l, the **Programmable Table** brings into the game an entirely new category of furniture that actively transforms itself, from shipping to full-functionality. This prototype, unveiled at the 2015 Fuori Salone in Milan in collaboration with Biesse, demonstrates the first highly-active and reconfigurable furniture that mediates between various conditions: shipping, storage and a variety of uses.

LineaAE
Enaip Lombardia

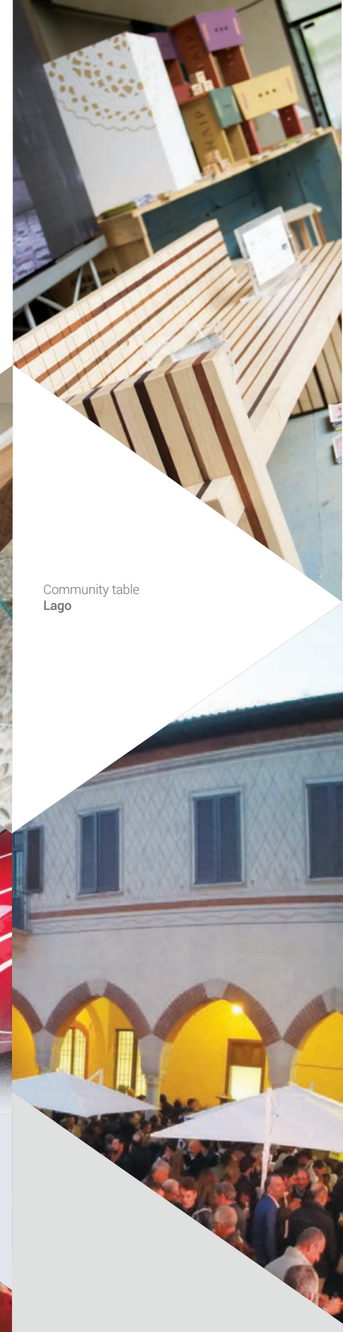
Daniel Libeskind
for **FIAM Italia**

Daniel Libeskind

An international figure in architecture and urban design, the architect Daniel Libeskind is renowned for his ability to evoke cultural memory in buildings of equilibrium-defying contemporaneity. Informed by a deep commitment to music, philosophy, and literature, Mr. Libeskind aims to create architecture that is resonant, original, and sustainable.

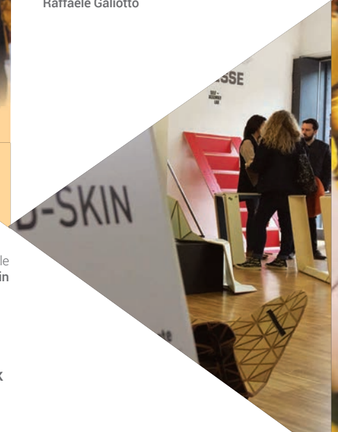


K14 kitchen
Cantù Made Italia



Community table
Lago

"Bicefalo"
Raffaele Galiotto



Programmable Table
Woodskin

biessegroup.com/designweek

Mastersaw 625 Double table

INTERMAC

Creativity and know-how are combined together in the new cutting centre signed by Intermac

Mastersaw 625 doubletable:

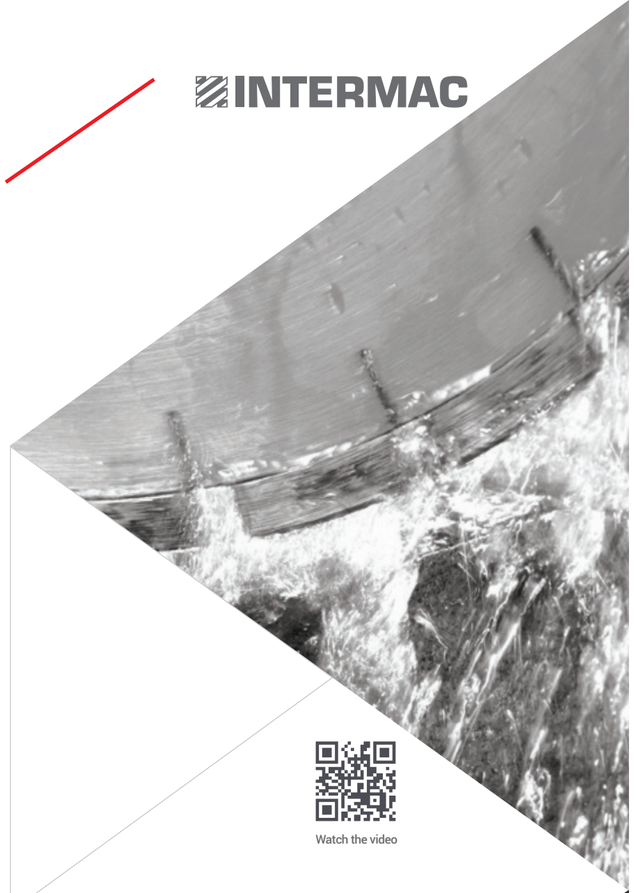
Is able to transform slabs of marble / granite in the finished product , combining into a single fully automated solution the cutting process with the product finishing.

Does not require any supervision by the operator and has a user friendly software that can handle all phases of production.

Provides a wide range of optionals to satisfy the production needs of even the most demanding customers.

MasterSaw doubletable 625 is patended by Biesse Group.

intermac.com



Watch the video

Helix System

DIAMUT

Revolutionary drilling

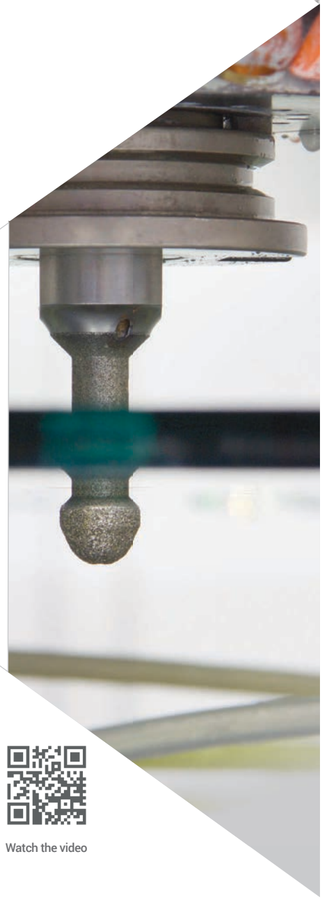
The Helix System was born of the desire of both Diamut and Intermac to develop a revolutionary drilling system which, to date, has not been present on market - a system able to perform drilling operations with integrated upper and lower countersinking on glass sheets of up to 19mm thick, using a single tool on CNC machines.

Today's technology forces operators to use two tools, as well as imposing some limits; it does not integrate coun¬tersinking of the lower part, thus requiring the use of different drill bits for bores of different diameters.

Our collaboration with Intermac and the development of a specialist software means that the tool no longer descends vertically, but in a helical motion; it is the radiused part of the tool which enters the glass sheet, and instead of a drilling motion, the glass is ground to create the bore. Once the drilling operation is complete, lateral grinding takes place, which enlarges the bore to the nominal dimensions. Once this phase is complete, the lower and upper countersinking takes place, and all defects are eliminated.

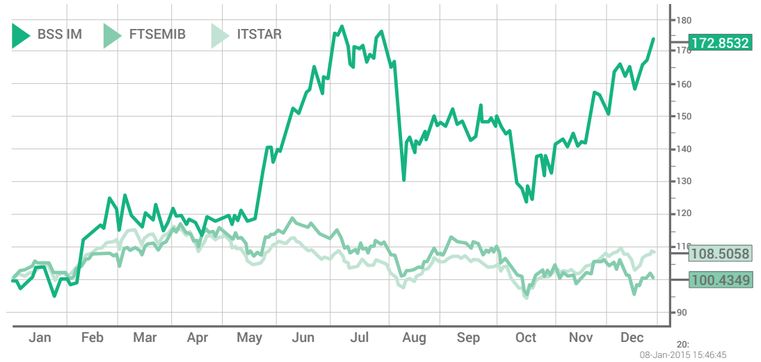
Helix System is available across the whole Master range, manufactured from 2005 onwards and requires a specific software update. Please contact your Intermac Customer Service for further informations. Helix system is a patent pending solution of Biesse Group.

diamut.com



Watch the video

Those who invest in mechanics today in Europe choose Biesse.



BSS IM Equity (Biesse Spa) Yearly Index

What the European financial market has been demonstrating, even as early as the last quarter of 2014, is a continuously growing interest in machinery companies like Biesse Group, whose market value is registering a trend that goes way above every expectation.

2015 began in this same positive light, in spite of all of the adversity and financial tension still present on a global level, showing an elevation that has been favoured in particular by the chronic weakness of the euro. This weakness significantly benefits exportation and Biesse can't be anything but advantaged in terms of market penetration, being as it is an international Group that exports almost 90% of its sales volume.

«In the last period, Biesse over-performed the Stock Exchange indices in a substantial way» explains **Alberto Amurri**, IR for Biesse Group. «In fact, the stock registered an increase of 72% in 2014 against a rise of 55% for the main equivalent» in Germany.

The business and industrial activities completed by Biesse in the last 18 months have transmitted trust to the financial markets, inspiring a more widespread optimistic perception which supports an upswing in the demand for durable goods.

Advanced materials

Biesse's know-how at the service of technological materials

With the new Plast range, the cutting-edge technology of Biesse, a business that can boast a 46-year-long presence on the market, meets the operating needs of plastic and composite material processors.

Biesse Group, multinational company , leader in the wood, glass, stone and metal processing technology sector, consolidates its presence on the market of technological materials processing machines with dedicated solutions designed for a growing sector.

A team of sector experts, capable of interpreting and anticipating business needs, designs and develops high-tech machinery for the manufacturing of products for the packaging, visual communication (signs, prints, etc.), building (indoor and outdoor flooring, acoustic insulation,etc.) and industry (filters, gaskets, etc.) sectors, which process expanded and compact plastic materials, composite materials, cardboard, etc.

A full and integrated range of machining centres and beam saws for all machining operations of technological materials.

Biesse showcased its solution for advanced materials processing at Plast fair trade, held in Milan from 5 to 9 of May.

biesse.com/advancedmaterials

In

Brema Drilling Machines

Compact power

Brema vertical boring machines can carry out all boring, milling and glue and dowel insertion operations, as well as boasting the ability to manage additional hardware inserts.
The structure of these machines has been designed to achieve optimal loading and unloading ergonomics, with a small footprint which saves 50% of space, in addition to offering zero set-up times and high levels of productivity.

The vertical position of the panel and the technical characteristics of these vertical boring machines allow for the processing of more delicate surfaces. A perfect combination of Biesse technology and Italian genius.

biesse.com/brema

Vektor 15 CS

The flexible vertical boring machine with an integrated unit for inserting glue and dowels. Designed for medium/large size companies, to machine all the cabinet elements in one single step, with just one operator, and in a limited space.

Brema Eko 2.1

Brema Eko 2.1 is the new compact and versatile vertical boring machine that supports the machining of different thickness and size formats within a reduced footprint. It is the ideal solution for "just in time" manufacturing for artisans, small companies and special components within large companies.

With

Contemporary Cabinets improves production volume flows

A new method of panel management and a specialised waste recovery system have helped to re-create the workflow for **Contemporary Cabinets Inc**.: «Before we adopted the new system, we didn't have a good method for managing the flows» commented **Don Wiggins**, Contemporary Cabinets plant manager. «When we purchased a new machine, we would position it wherever there was space, without considering the workflow and consequently, where the machine would be best placed for maximum efficiency. As a result, the pieces moved through the factory without any logical sense.
With Biesse, we designed a system to create the current flow management via the implementation of new equipment, and now everything works in a U formation, following the most efficient route through the factory». The panels begin their journey by being loaded via a **Winstore**, and are then passed on to a **Selco WNT610**, a **1537 NBC SKill** machining centre and an **Akron 855** edgebanding machine.

Every single element of the cabinet travels through the production line, and is subject to all of the machining processes, edgebanding, dowelling and insertion of hardware, before eventually being loaded onto the pre-assembly carriages. The cabinets then are assembled and placed on conveyor belts to be completed. The backs are secured in position to keep them square until the bonding process is complete, while a belt transports the drawers and doors. Finally, the cabinet is packed and loaded on a truck.

The company employs 100 people across 5 plants of over 9000 m2 in Edmond, Oklahoma. There is a department dedicated to the recovery of machining waste and to the panel management process.
«We mainly produce cabinets for commercial projects» Wiggins continues. «We have a factory for customized products such as reception desks, conference tables and more complex pieces which cannot be introduced into the production flow of the main plant. Most of our customers are furniture stores, schools, dentists and doctors surgeries, churches and small residences. Recent projects have been completed for large hospitals, jewellers, gyms, for an oil company, and many other retail stores».

The Winstore system is composed of an overhead travelling crane system that stores information on the characteristics and the positions of each panel inside it. It can hold up to 2,000 sheets of material.
«We position stacks of panels in the external warehouse and inform the control system of what type of material it is and how many sheets there are in total. Winstore then loads them places them in its warehouse. If there is a new material with characteristics that are not already stored in the memory, the weight of the sheet is recorded. The panels are loaded via suction cups that create a vacuum. Before we implemented this system, the machine remained stationary for 20-30 minutes while waiting for the necessary material for machining to be loaded. Now, however, almost all the material is stored in Winstore and there are no waiting times. Also, due to the fact that it is an overhead travelling crane, stacks of material can be stored nearby, so using large lifting carriages between the stacks of material is no longer necessary.

Winstore also keeps track of the material in stock and how many sheets are used by the beam saw and the NC machining centre. We started using Winstore in March 2013 and since then, our entire production flow has been redirected to work around this system. Both the Selco beam saw and the Skill machining centre are also incorporated into WinStore's working area, and as such, both can also be rear-loaded directly from the latter. The mere fact that we now have a significant production flow has greatly helped us. We have enhanced the drilling and inserting machine with a numerical control machining centre and this has given us excellent results».

Customer
Contemporary Cabinets

City
Edmond

Country
Oklahoma, USA

Website
www.con-cab.com

Machinery used
Winstore
Selco WNT610
SKill 1537 NBC
Akron 855

> With Biesse, we designed a system to create the current flow management, following the most efficient route through the factory.

Don Wiggins
plant manager

With

Maton and Biesse make music together

With more than 1,200 guitar models made for thousands of professional musicians, **Maton Guitars** confirms its worldwide presence, becoming a truly great Australian success story.
«The best guitar is the one that the market demands» says **Patrick Evans**, Head of product development at Maton. Continually evolving production techniques and the choice of the most efficient software prompts Maton to hunt for new solutions that can better respond to the latest market needs.
In 2008, after considering the pros and cons of various manufacturers, Maton chose Biesse. Maton's production combines technological requirements and artisan skills, that have to be perfectly balanced to achieve the highest levels of quality and performance; a great guitar is both a work of art and an excellent musical instrument. To obtain these results, the right tools are crucial - both for heavy machining operations and delicate processes, to create 3D shapes and work with minimal tolerances.

Biesse has provided Maton with a range of advanced machining process solutions, not only adding quality to the products, but also providing the skilled craftsmen with more time to devote to manual finishes, ensuring that every product is unique. The company installed its first CNC machine back in 1995. It now has two nesting centres in tandem.

The **Rover C** is the ideal machine for high-precision nesting operations, but also for creating complex shapes such as the body of Maton's unique guitars.
The machine's newly-designed cabin provides excellent visibility of all the working units. «In creative hands», comments Patrick Evans, «Biesse becomes the instrument of a true craftsman. The key is to identify the right machine for the job, and we've found that with a Biesse machine we can accomplish much more than we thought».

Maton also uses its two Biesse machines to create new product prototypes, the most complex shapes, and almost every individual part that makes up a Maton guitar. Patrick confirms that Maton uses the Biesse CNC machines at high speeds even on the most complex parts, such as the famous fingerboard: «We need enough flexibility to be able to switch from one model to another very quickly, and Biesse allows us to do that very effectively. Biesse gives users the creative freedom to produce virtually any concept, both quickly and efficiently».

Using Biesse machines has allowed Maton to devote more time to the quality of the finish, wasting less time on processing individual pieces. Each Maton guitar is hand-finished by a dedicated and qualified team of luthiers.
Maton has demonstrated that it is possible, in Australia, to produce a guitar with the highest world-renowned quality, using Australian timber and ground-breaking technologies. Maton knows exactly how to design and build a unique product, a well-made guitar. And with Biesse as its valued partner, the best guitars in the world are brought to life.

Customer
Maton Guitars

City
Box Hill (Melbourne)

Country
Australia

Website
www.maton.com.au

Machines used
Rover C6.40FT

> We found we can accomplish much more than we thought on a Biesse machine.

Patrick Evans
head of product development

We

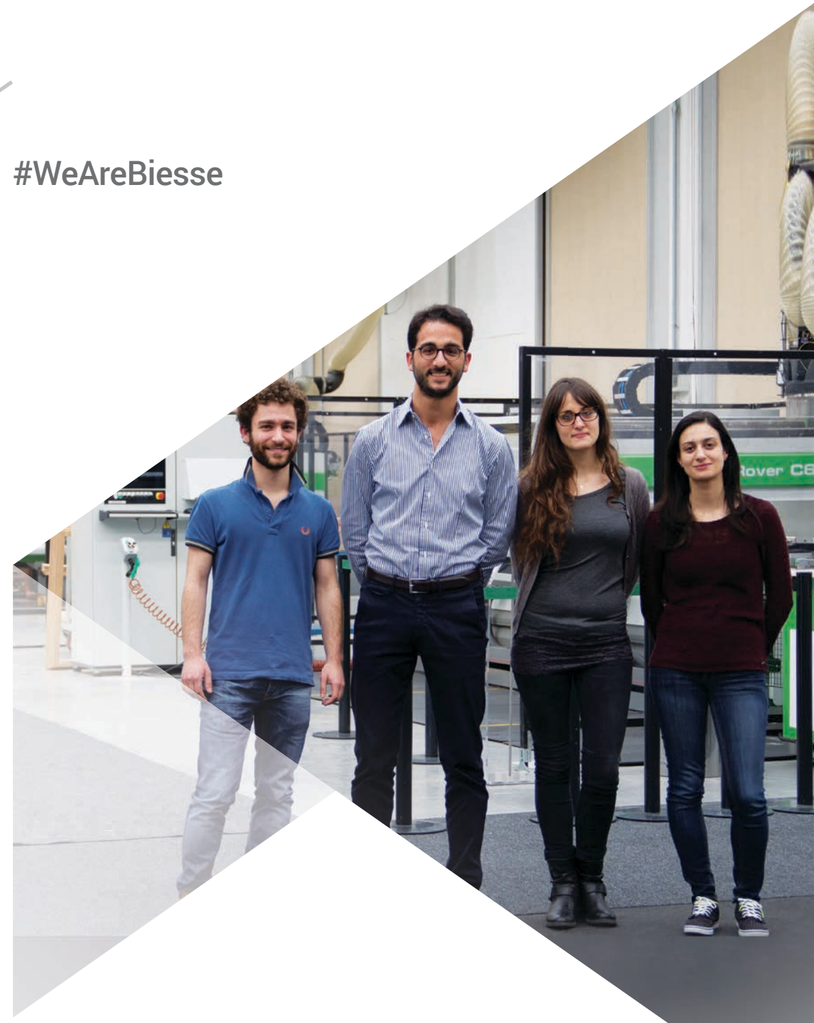
#WeAreBiesse

Davide
After gaining a diploma with top marks and graduating cum laude in electrical engineering, he is now part of the team that develops the artificial intelligence that controls our machines.
Why Biesse?
«Because I want to grow and gain experience in an industrial company that is one of the largest in its sector».

Valerio
26-year old, after graduating in mechanical engineering, is now part of the team that coordinates projects between Pesaro and Bangalore, Biesse's Indian production site.
Why Biesse?
«Because I was looking for a large company that could give me the opportunity to travel and get to know international realities».

Federica
Has a degree in mechanical engineering and is passionate about research and development and joined the team working on advanced materials solutions.
Why Biesse?
«Because I have the chance of seeing my ideas and my drawings being concretely applied in the factory».

Alessandra
A a graduate in computer science who also works as a volunteer teaching children the principles of automation through Lego, who is now part of the software development team.
Why Biesse?
«Because I want to learn and here I have the opportunity to do so whilst working at a high level».



Biesse Group invests in people, through its new recruitment plan

The pursuit of excellence through machinery, the distilled essence of technology, and through people, both those with extensive experience and young people with great potential, to translate tomorrow's ideas into today's innovations - this is the new challenge to be tackled by Biesse Group. In the second half of 2014, the group launched a major recruitment programme to support development in Italy and across the world, with a view to strengthening the main business areas, from design to manufacturing, relying on the experience of senior professionals and the enthusiasm of those who aspire to one day take their place.

In 2015, this programme evolved into a plan targeting recruitment and inclusion in Italy and abroad, where Biesse Group today employs nearly 50% of its staff. «This operation is designed to build the company's future» explains **Fabio La Cava**, the Group's Human Resources Director. «In light of the cyclical nature of the industry, within 4-5 years, people we recruit today will become the reference points of tomorrow, pushing Biesse Group ever forwards towards the ambitious targets we have set ourselves».

The recovery in production volumes has allowed for new employment opportunities to be generated in the factory, which has always been a pillar of excellence in terms both of methodologies and working conditions. «The machines incorporate increasingly advanced technologies, and operators in the factory are a precious resource - they combine technical expertise and reliable engineering skills» continues Fabio La Cava. These operators are required to have a good technical education, as well as the ability to read mechanical drawings, or specific experience in mechanics. In addition, organisational flexibility is a must, as well as a passion for working in an environment which is focused on ensuring the absolute quality and reliability of high-tech products. «For us, reliability is a great strength, and we foster it as part of our corporate culture» concludes the Director of Human Resources.

The new positions represent a fantastic opportunity, above all for young people from the surrounding areas, who have probably already taken part in a tour of the company. However, working with Biesse is also a powerful draw for all those who are willing to invest seriously on their own professional development, and who are interested an international career.

Who is the ideal candidate for the world of Biesse? «Young people with talent and energy, who are precise and committed when it comes down to practical methods, and who are ready to seize every opportunity for professional growth that they are offered, with enthusiasm and the spirit of adventure» explains Fabio La Cava. Key targets are new engineering graduates (whether in the mechanical, electronic, computer science or management area).

People are the true capital of the company, and founder **Giancarlo Selci** is the most ardent believer of this: «We push people towards self-improvement, encouraging them to make suggestions, to make decisions, but also to be creative and innovative and to work in team. We help them to develop their leadership and skills, guiding them with passion and leading by example».

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