ROVER AS FT

CNC MACHINING CENTRE

BIESSE

FULL PRODUCTION AT A COMPETITIVE PRICE

WATCH THE VIDEO

THE MARKET EXPECTS

a change in manufacturing processes that will enable companies to accept the **largest possible number of orders**. This is coupled with the need to maintain high quality standards whilst offering product customisation with quick and **clearly-defined delivery times**.

BIESSE RESPONDS

with **high-tech, innovative** solutions for nesting operations. **Rover AS FT** is the machining centre for Nesting operations, designed for the customer who wants to invest in the company's growth and evolve the production process, obtaining top performance and productivity results. Rover AS FT boasts a quality-competitiveness ratio without equal on the market, making it the ideal investment.

ROVER ASFT

- A SINGLE PROCESSING CENTRE FOR MANY TYPES OF MACHINING OPERATIONS
- TOP-OF-THE-RANGE COMPONENTS
- A WIDE CHOICE OF TOOLS, READY FOR ANY TYPE OF MACHINING OPERATION
- CAN BE INTEGRATED WITH AUTOMATIC LOADING AND UNLOADING SYSTEMS

A SINGLE PROCESSING CENTRE FOR MANY TYPES OF MACHINING OPERATIONS

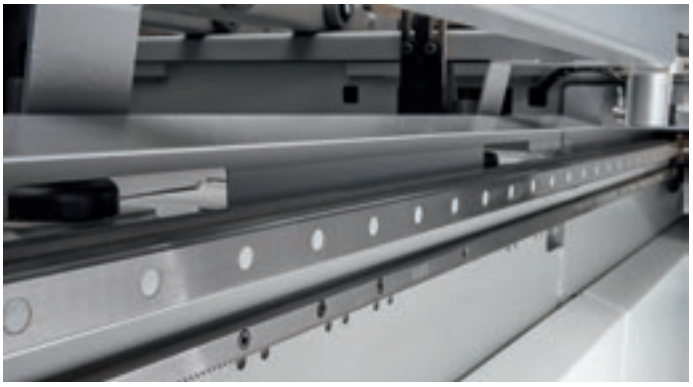
Rover AS FT enables users to carry out different types of machining operations and achieve a finished, fully-machined product with a single machine.

THE EXTREME RIGIDITY OF THE STRUCTURE GUARANTEES AN OPTIMAL FINISH ON DECORATIVE PIECES AND FURNISHINGS.

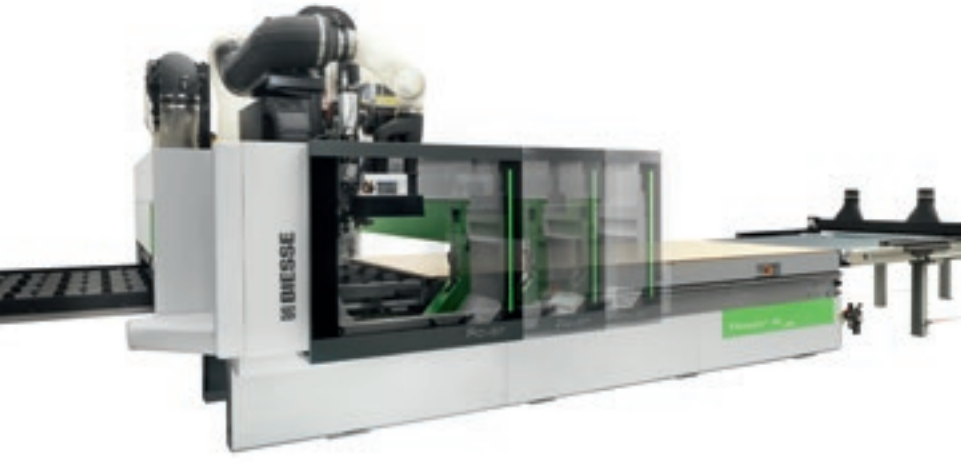
RELIABLE TECHNOLOGY

Rover AS FT is composed of an extremely robust and well-balanced structure, designed to handle demanding machining requirements without compromising product quality.

The Gantry structure with dual X motors is designed to increase precision and reliability standards for the execution of machining operations.

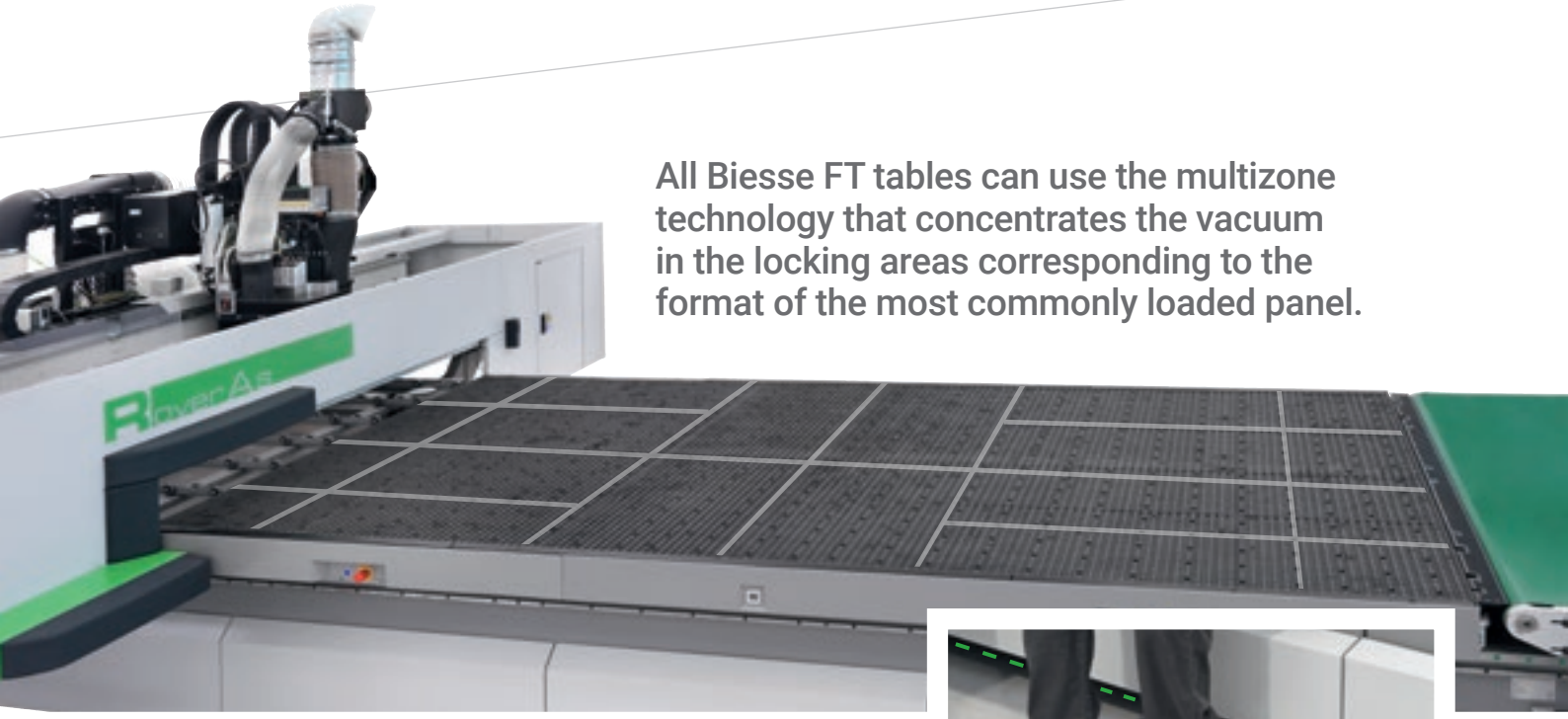


The reinforced transmission guides lend the machine greater rigidity, boosting the level of precision and machining quality.



Higher motor power increases acceleration up to 4 m/s2 and speed up to 105 m/min, minimising waiting times and reducing cycle times.

WORK TABLES, UNIQUE ON THE MARKET.

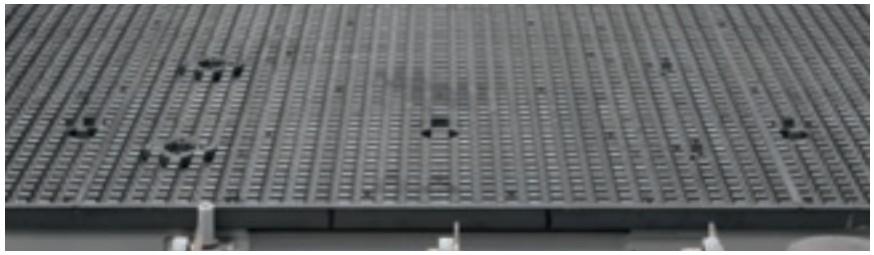


All Biesse FT tables can use the multizone technology that concentrates the vacuum in the locking areas corresponding to the format of the most commonly loaded panel.

Activation of locking systems
Thanks to a line of photocells on the front side of the base, the locking systems can be activated from any point on

Two types of nesting table are available, based on different technologies depending on the application and the customer's end product: FT PLUS and HFT.

FT PLUS
Allows Biesse clamps to be used to hold solid wood elements or complex, small pieces. The extensiveness and increase in payload provide maximum flexibility across machining operations. (Available on sizes 2231 and 2243).



HFT (HIGH FLOW TABLE)
Inspired by the experience of our customers. The high vacuum flow rate renders the work table ideal for machining operations on sheets with automatic loading and unloading.

The vacuum modules can be directly positioned on the support panel
The modules can be quickly and easily used, even without the auxiliary vacuum system, without compromising the hold on the panel.

TOP-OF-THE-RANGE COMPONENTS

Biesse uses the same high-tech components for all machines in its products range. The electrospindle, boring head and aggregates are designed and manufactured for Biesse by HSD, the global leader in this sector.

C AXIS TORQUE: MORE PRECISE, QUICKER, GREATER RIGIDITY.

Electrospindles for every application:
- up to 19.2 kW HSD liquid-cooled with automatic tool change HSK F63 1,000-24,000 rpm.

The loop presser supports the machining of curved and stacked panels by applying pressure to the upper surface of the panel.

WIDE RANGE OF TOOLS READY TO USE ON THE MACHINE, MAXIMUM EASE OF TOOLING.

Tool change magazines with a total of up to 28 spaces. All tools and aggregates available at all times, with no need for operator intervention for tooling when switching from one machining operation to the next.

Easy access to the tool magazine and working unit, and reduced machine downtime.

Revolver magazine with 12 overhead positions and 16 on the X carriage.

Reduction of tool change set-up time and the possibility of operator error, thanks to the contact pre-setter, which automatically determines the length of the tool.

NESTING

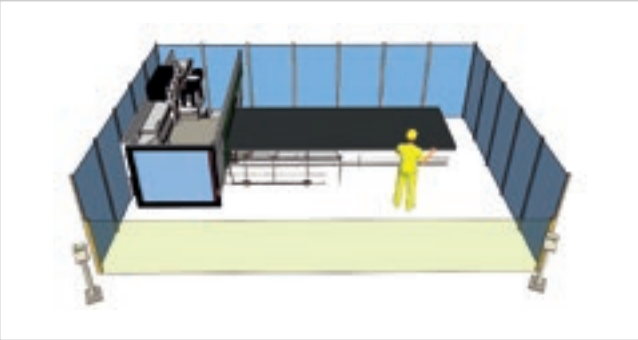
PRODUCTIVE ECONOMY

Productivity and efficiency are increased, while maintaining high quality standards and fast delivery times.

Biesse's machining centres for nesting and carving operations allow to achieve a finished produced machined on a single, compact machine at a competitive price. The robust and well-balanced structure of the machine is ideally suited for withstanding greater processing stresses without compromising the quality of the piece and for ensuring the best finish on different types of materials.

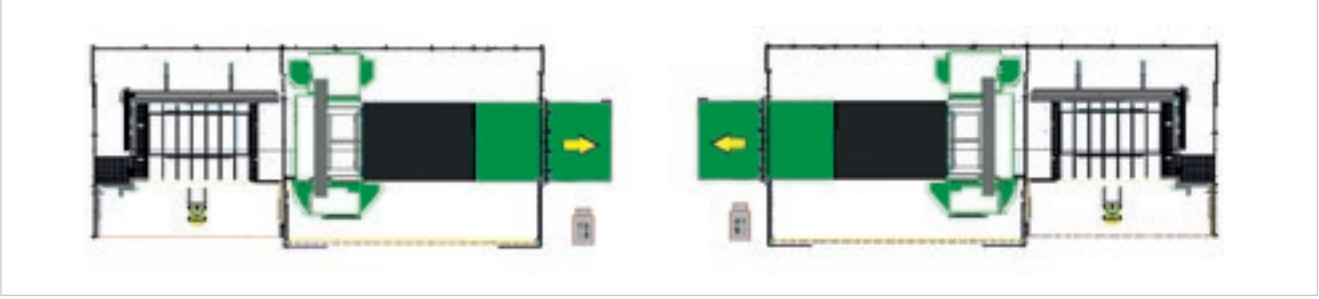
VARIOUS POSSIBLE CONFIGURATIONS

PENDULAR CONFIGURATION: PRODUCTIVE AND SAFE



The machine can be configured with tandem loading in order to alternately process panels. This allows for loading or unloading to be carried out during machining operations.

CONFIGURATION WITH AUTOMATIC LOADING AND UNLOADING SYSTEM: MAXIMUM EFFICIENCY



Loading/unloading operations are carried out simultaneously, allowing the operator to remove completed components from the unloading station in the utmost safety whist the machine is already processing the next panel.

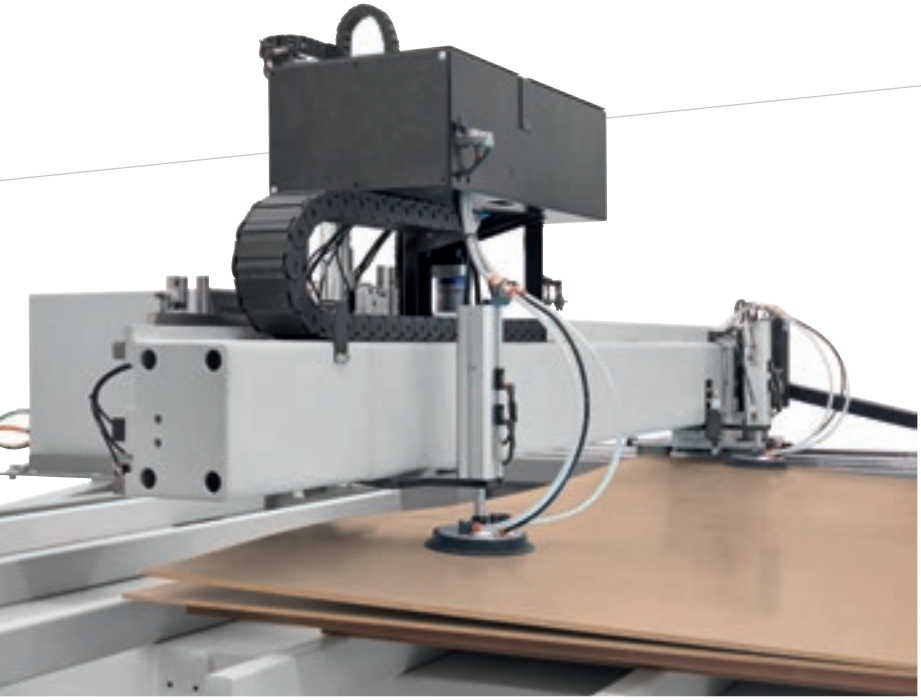
CAN BE INTEGRATED WITH THE WINSTORE AUTOMATIC STORAGE

Winstore is an automated storage for the optimised management of panels. It ensures that the panels to be machined are easily accessible at all times, so it is possible to substantially increase cell productivity compared to manual loading methods using a forklift truck, without frequent stack changes.

- RAPID RETURN ON INVESTMENT THANKS TO INCREASED PERFORMANCE AND REDUCED COSTS
- PRODUCTION FLOW OPTIMISATION
- INTEGRATION IN THE PRODUCTION LINE

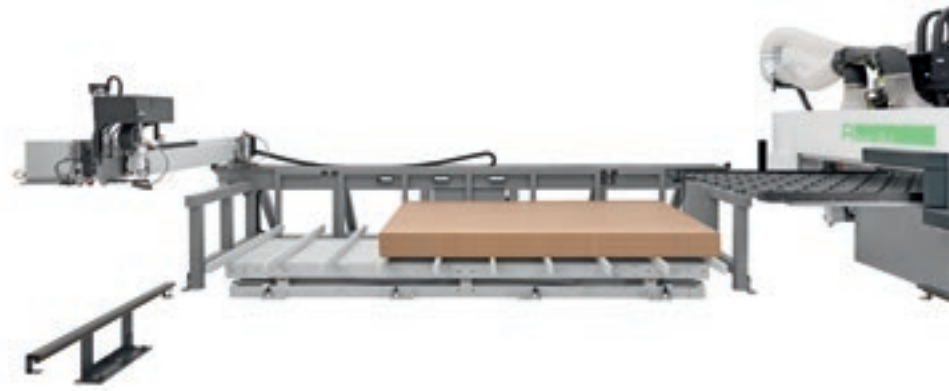
- REDUCED DELIVERY TIMES
- REDUCED WAREHOUSE SPACE REQUIRED
- REDUCED LABOUR
- WASTE REDUCTION
- LESS RISK OF DAMAGING PANELS

LOADING AND UNLOADING SOLUTIONS

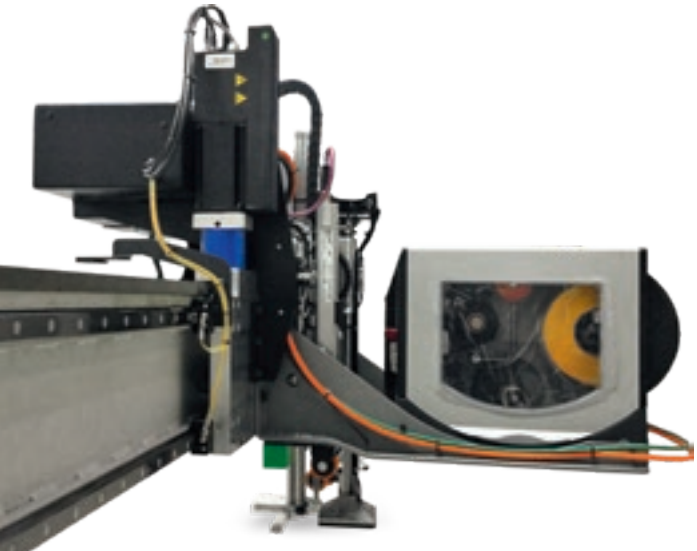


Solutions dedicated to the management of porous and thin materials

The new alignment system manages the detachment and aligned loading of porous and/or thin panels of up to 3 mm thick, or with strong bonding.



Panel loading system with scissor lift and automatic panel alignment.
The standard pushing system, with the loading pallet positioned close to the machine, ensures compact overall dimensions on the ground. The pallet with automatic labelling allows the stack of material to be replaced while the machine is working. Il banco con etichettatura automatica consente la sostituzione della pila di materiale mentre la macchina lavora.

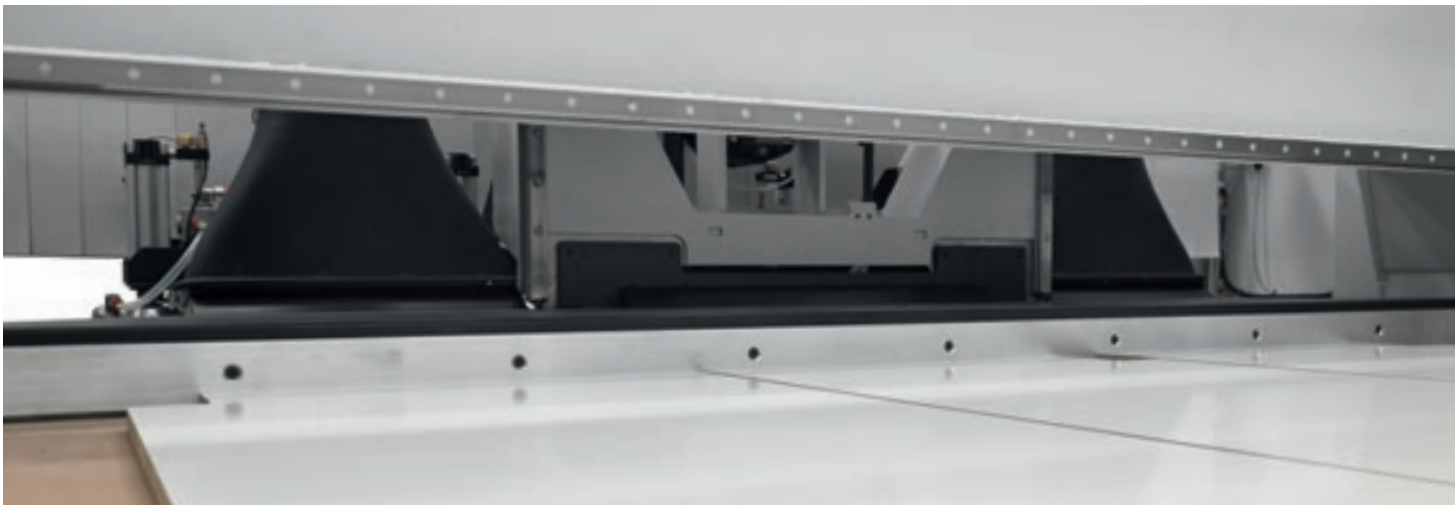


Panel identification and traceability within the production flow thanks to **on-demand labelling system with touch screen.**

INVERTED FLOW LOADING SYSTEM

The suction cup loading system is fitted in accordance with the customer's flow requirements, to optimise internal logistics.

The technology of the independent suction cups for loading with detachment systems delivers a load flexibility that is unrivalled on the market.

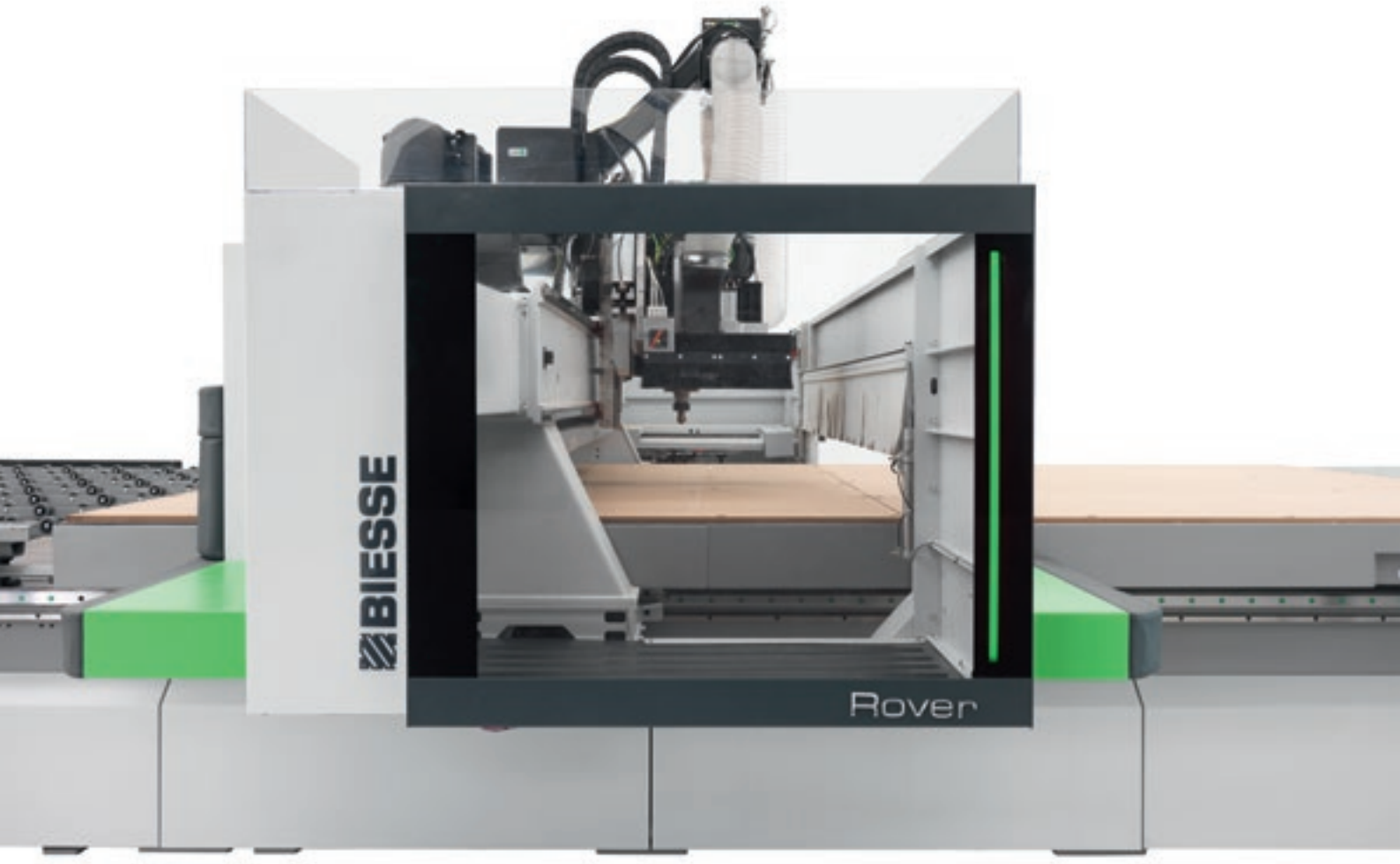


Sweeping arm with adjustable blade.
Used to unload panels up to 3 mm thick.

PROTECTION AND SAFETY FOR ALL MACHINING OPERATIONS

Biesse machines are designed to enable operators to work in complete safety.

Long term safety and reliability thanks to the new bumpers combined with photocells with no footprint or mechanical wear.

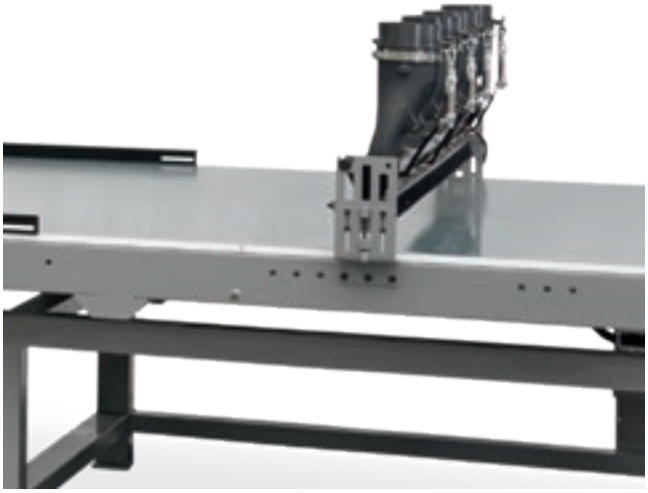


MAXIMUMVISIBILITYOFTHEWORKINGUNITFROM ANY POSITION

LED bar with 5 colours
indicating the machine status in real time, allowing the operator to check the machine status at any point.

REDUCEDCLEANINGTIMES, TO ENSURE MAXIMUM PRODUCTIVITY

Suction hood with 12 programmable positions and the use of a continuous cover for optimum suction capacity.



System with 2 to 4 suction hoods positioned above the unloading belt.

Intake manifold positioned at the end of the belt.

THE MOST ADVANCED TECHNOLOGYCLOSEATHAND

bTouch is an optional feature that can be purchased after purchase of the machine to enhance the functionality and the usage of the technology available.

bTouch is the new 21.5” touch screen which enables you to carry out all of the functions previously performed using the mouse and the keyboard, enhancing the direct interaction between the user and the device.

Perfectly integrated with the B_SUITE 3.0 interface (and with later versions) and optimised for touch, this solution is incredibly simple, and makes the best possible use of the Biesse software functions installed on the machine.
The screen has a maximum resolution of 1920 x 1080 (Full HD) at 60 Hz. Specifically, you can:

- **create any CAD programme (including parametric programmes), with layouts and machining operations**
- **move, rotate and increase the size of objects (panel, NC machine, tool etc.) present within the CAD/CAM area**
- **quickly and simply complete warehouse tooling, by dragging the tools into their designated places**
- **prepare the machine for the correct positioning of the panel (machine set-up), moving tables and carriages into the desired position**
- **send a programme machining list, change the parameters and send it to the NC machine for processing**
- **manage all of the soft-console controls**

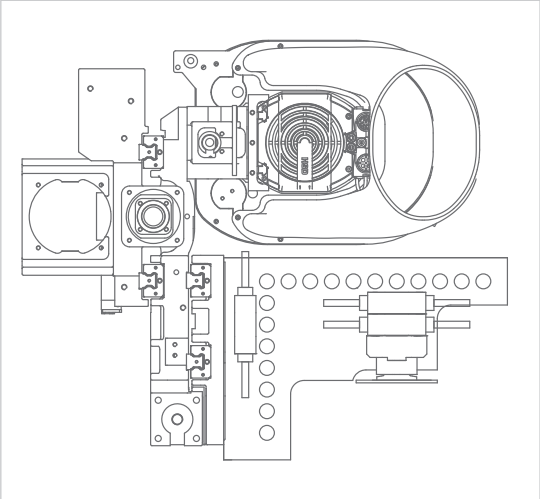
EFFICIENT PRODUCTION, WITH NO LIMITS

Rover range can be perfectly integrated in a line with robots (ROS) and loading/ unloading systems. It's the ideal solution for those who need automated solutions for producing large batches.

INCREASED PRODUCTIVITY AND REDUCED PRODUCTION COSTS, THANKS TO:

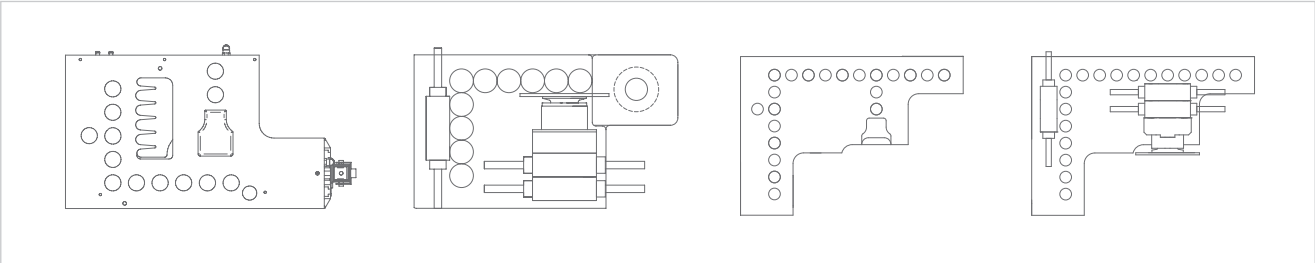
- The possibility of working with twin stations, with piece loading and unloading while the machine is running.
- Reduced working time for the operator.
- Simplification of work for the operator.
- Machining operations that require no supervision and have no time limits (24/7).

COMPOSITION OF THE WORKING UNIT



3-axis electrospindles with power of up to 19.2 kW with liquid cooling.

Boring heads available from 13 to 25 spindles:
BHZ 13 - BHZ 17L - BHZ 21 - BHZ 25L.



A COMPLETE RANGE OF AGGREGATES

SOPHIA

GREATER VALUE FROM MACHINES

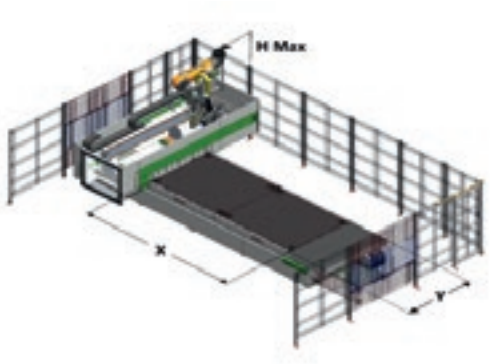
The Biesse IoT platform which enables customers to access an extensive range of services to streamline and rationalise their work management processes.

- SERVICES
- PROACTIVITY
- ANALYSIS

BIESSE

in collaboration with accenture

TECHNICAL SPECIFICATIONS



WORKING FIELDS AND HEIGHT Z

		X	Y	Pendular NO suspension	Z	H max
Rover AS FT 1224	mm/inch	2465/97	1260/50	809/32	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 1236	mm/inch	3765/148	1260/50	1459/57	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 1531	mm/inch	3100/122	1560/61	1126/44	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 1536	mm/inch	3765/148	1560/61	1459/57	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 1836	mm/inch	3765/148	1875/74	1459/57	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 2231	mm/inch	3100/122	2205/87	1126/44	170 (*)/ 200 - 6,7 (*)/ 8	2750/108
Rover AS FT 2243	mm/inch	4300/169	2205/87	1726/68	170 (*)/ 200 - 6,7 (*)/ 8	2750/108

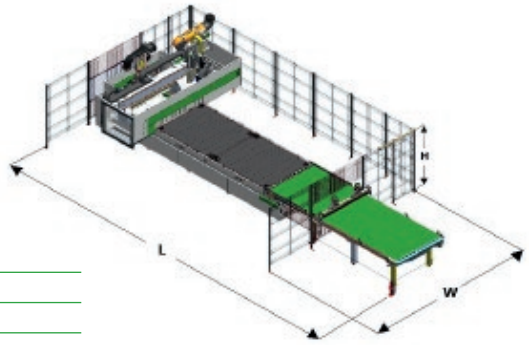
(*) With Sweeping Arm

SPEED

		X	Y	Z	Vectorial
High speed	m/min ft/min	85 - 279	60 - 197	20 - 66	105 - 344

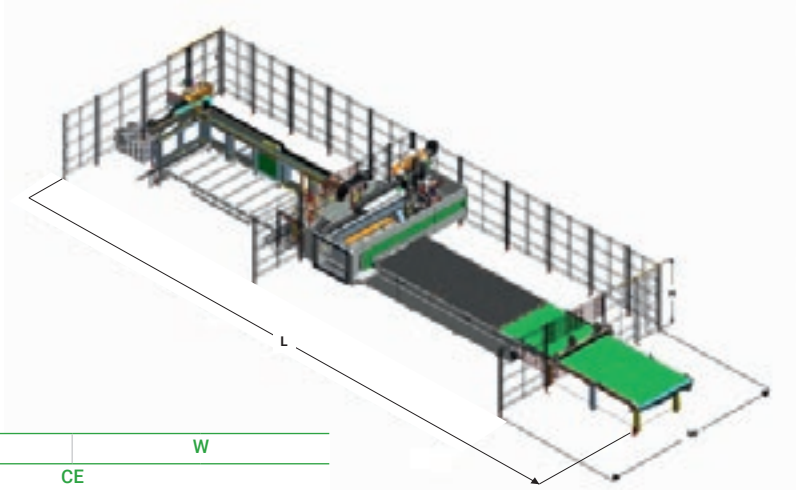
OVERALL stand alone DIMENSIONS

High Speed		L	W
		CE	
Rover AS FT 1224	mm/inch	6525/257	4740/187
Rover AS FT 1236	mm/inch	7830/308	4740/187
Rover AS FT 1531	mm/inch	7155/282	5064/199
Rover AS FT 1536	mm/inch	7828/308	5064/199
Rover AS FT 1836	mm/inch	7828/308	5334/210
Rover AS FT 2231	mm/inch	7155/282	5724/225
Rover AS FT 2243	mm/inch	8338/328	5724/225



OVERALL DIMENSIONS of unloading belt only

High Speed		L	W
		CE	
Rover AS FT 1224	mm/inch	8155/321	4734/186
Rover AS FT 1236	mm/inch	10667/420	4743/187
Rover AS FT 1531	mm/inch	9339/368	5064/199
Rover AS FT 1536	mm/inch	10674/420	5064/199
Rover AS FT 1836	mm/inch	10674/420	5334/210
Rover AS FT 2231	mm/inch	9328/368	5724/225
Rover AS FT 2243	mm/inch	11730/461	5724/225



OVERALL DIMENSIONS of Nesting Cell

Nesting Cell - Type A		L	W
		CE	
Rover AS FT 1224	mm/inch	10010/394	4730/186
Rover AS FT 1236	mm/inch	13770/542	4740/187
Rover AS FT 1531	mm/inch	11820/465	5064/199
Rover AS FT 1536	mm/inch	13773/542	5064/199
Rover AS FT 1836	mm/inch	13714/539	5334/210
Rover AS FT 2231	mm/inch	11814/465	5724/225
Rover AS FT 2243	mm/inch	15400/606	5720/225
Nesting Cell - Type B		**L**	**W**
		CE	
Rover AS FT 1224	mm/inch	12887/507	4813/189
Rover AS FT 1236	mm/inch	16610/654	4860/191
Rover AS FT 1531	mm/inch	14700/579	5102/201
Rover AS FT 1536	mm/inch	16619/654	5102/201
Rover AS FT 1836	mm/inch	16620/654	5372/211
Rover AS FT 2231	mm/inch	14690/578	5804/229
Rover AS FT 2243	mm/inch	18304/721	5804/229

The technical specifications and drawings are non-binding. Some photos may show machines equipped with optional features. Biesse Spa reserves the right to carry out modifications without prior notice.

Weighted sound pressure level A in: Operator workstation LpfA 76 dB (A). Loading unloading position LpfA 72 dB (A). Uncertainty factor K = 4 dB (A). Operating conditions: milling operations at a speed of 20 m/min, 20000 rpm.

The measurement was carried out in compliance with UNI EN ISO 3746, UNI EN ISO 11202, UNI EN 848-3 and subsequent modifications. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Even though there is a relation between emission levels and exposure levels, this cannot be used reliably to establish whether further precautions are necessary. The factors determining the noise levels to which the operative personnel are exposed include the length of exposure, the characteristics of the work area, as well as other sources of dust and noise, etc. (i.e. the number of machines and processes concurrently operating in the vicinity). In any case, the information supplied will help the user of the machine to better assess the danger and risks involved.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

- Planning in just a few clicks.
- Simulating machining operations to visualise the piece ahead of manufacturing and have some guidance for the planning phase.
- Virtual prototyping of the piece to avoid collisions and ensure optimal machine equipment.
- Machining operation simulation with a calculation of the execution time.

REDUCED TIME AND WASTE

B_N

B_NEST IS THE B_SUITE PLUGIN SPECIFICALLY FOR NESTING OPERATIONS. IT ALLOWS YOU TO ORGANISE YOUR NESTING PROJECTS IN A SIMPLE WAY, REDUCING THE MATERIAL WASTE AND MACHINING TIMES.

- Flexibility with reduced production times and costs.
- Optimisation for every type of product.
- Management of articles, sheets and labels.
- Integration with company software.

MANAGING PRODUCTION IN A SIMPLE, USER-FRIENDLY MANNER

SMARTCONNECTION IS A SOFTWARE PACKAGE FOR MANAGING JOB ORDERS WITHIN THE COMPANY - FROM THE GENERATION PHASE TO SCHEDULING AND ACTUAL PRODUCTION START-UP - IN JUST A FEW SIMPLE, INTUITIVE STEPS.
THANKS TO SMARTCONNECTION, THE PRODUCTION SITE MACHINES CAN BE LINKED UP TO TRANSFORM THE COMPANY INTO A 4.0 ENTITY.

SMART CONNECTION

Powered by Retuner

MANAGE THE JOB ORDER → PLAN → SCHEDULE → WORK

CUSTOMER CARE IS WHO WE ARE

SERVICES is a new experience for our customers, to offer not just excellent technology but the added value of an increasingly direct connection with the company, the professionals who work there and the experience they embody.

ADVANCED DIAGNOSTICS

Digital channels for remote interaction online 24/7. Always ready to intervene on-site seven days a week.

A WORLDWIDE NETWORK

39 branch offices, over 300 certified agents, retailers in 120 countries, and spare parts warehouses in America, Europe and the Far East.

SPARE PARTS AVAILABLE IMMEDIATELY

Identification, shipping and delivery of spare parts for every need.

EVOLVED TRAINING OPPORTUNITIES

Lots of on-site, online and classroom training modules for personalised growth.

VALUABLE SERVICES

A wide range of services and software packages to help our customers achieve continuous improvements in performance.

AN EXCELLENT LEVEL OF SERVICE

+550 HIGHLY SPECIALISED TECHNICIANS AROUND THE WORLD, READY TO HELP CUSTOMERS WITH EVERY NEED

+100 EXPERTS IN DIRECT CONTACT THROUGH REMOTE CONNECTIONS AND TELESERVICE

+50.000 ITEMS IN STOCK IN THE SPARE PARTS WAREHOUSES

80% OF SUPPORT REQUESTS SOLVED ONLINE

88% OF CASES SOLVED WITH THE FIRST ON-SITE VISIT

90% OF MACHINE DOWN CASES WITH RESPONSE TIME UNDER 1 HOUR

92% OF SPARE PARTS ORDERS FOR MACHINE DOWNTIME PROCESSED WITHIN 24 HOURS

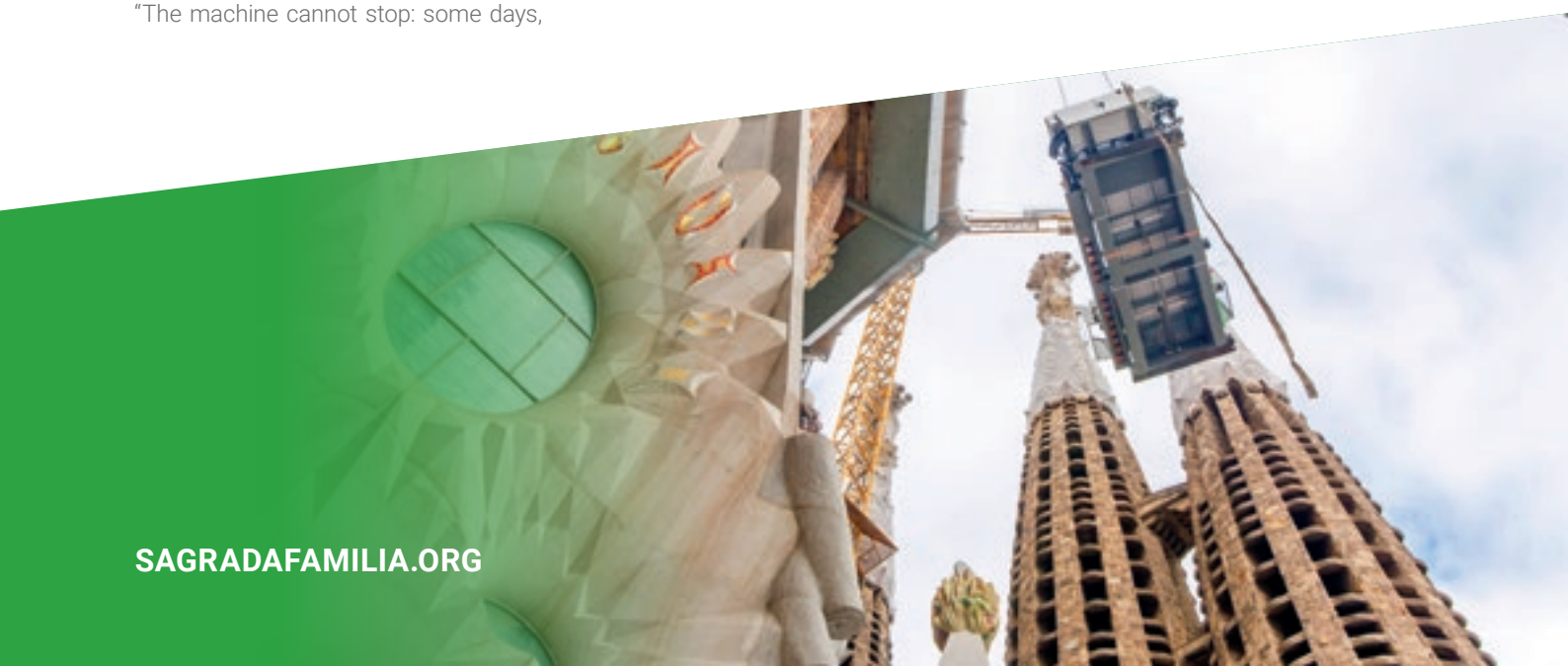
+5.000 PREVENTIVE MAINTENANCE VISITS

96% OF SPARE PARTS ORDERS DELIVERED IN FULL ON TIME

MADE WITH BIESSE

THE SAGRADA FAMÍLIA SITE BETS ON BIESSE

The carpentry workshop of the majestic cathedral designed by Antoni Gaudí has purchased a BIESSE processing centre mainly to develop moulds for the production of stone, marble and concrete elements, as well as shuttering modules. Salvador Guardiola, a highly experienced carpenter specialised in ship-building and responsible for recreating one of the two Caravels used by Columbo during his voyage to America, has been in charge of the Sagrada Familia site for 19 years. “We have chosen BIESSE for the quality of their processing centre and their technical service”, states Guardiola. “The machine cannot stop: some days, it works 24 hours over 24 and, therefore, we needed someone who is able to immediately react to any emergencies”. As a matter of fact, BIESSE’s technical service for the Sagrada Família site shall manage to be effective, timely and accurate thanks to the on-line service that the company offers to its customers.



SAGRADAFAMILIA.ORG

WOOD-SKIN + BIESSE, DYNAMIC DESIGN BECOMES INTELLIGENT

Digital material. This is how Giulio Masotti, the founder of Wood-Skin, defines his creation: two layers of wood joined together ("Or indeed, two layers of another material", he specifies) and a central layer of fabric. Via a process of removal, this solution allows for the creation of hinges which offer exceptionally high resistance. And so, masterpieces of creativity and dynamism are born - infinite combinations of architectural shapes and forms with an artisan touch and a metropolitan flavour. With his three partners, Stefano Baruffaldi, Susanna Todeschini and Gianluca Lo Presti, Giulio founded Wood-Skin in 2013, putting their names to what would go on to become a patented industrial process to serve a specific purpose, "to realize complex forms in a simple and economical manner, both in terms of the surroundings being created and the design itself," explains Giulio. "This is our response to the many issues that we have experienced first hand during the planning process".
Necessity was clearly a major driver, but also a powerful desire to experiment, leading the young team to develop a unique creation with infinite applications, "bridging the gap that exists between the possibilities of digital representation through CAD software and the constructed environment, which is very marked as things stand at present. Wood-Skin is a digital material that aims to fully exploit the potential of CNC machines - and thus of digital manufacturing - through the use of an intelligent composite material that makes it possible to create an unlimited number of high-strength hinges wherever you wish».
Innovation, technology, creativity: Biesse and Wood-Skin share a strong identity and a common vocation, and came together to share their experience at Ventura- Lambrate, during the Salone del Mobile. "We wanted to explore the po tential for working together in the future, with smart materials such as Wood-Skin and our shared passion for innovation. With the assistance of MIT Boston, we launched a collaborative project, which is both experimental and yet extremely practical: the Programmable Table. This new concepts embodies the vision of a future where items of furniture will be able to self-assemble once completed by the machine that produces them. This is not merely a prototype, but rather a concrete result which will give rise to a line of products in the not-too-distant future.".
This scenario may seem futuristic, but in reality, it is extremely practical, if supported by a suitable level of expertise which is able to give shape to ideas, in a simple and straightforward manner. Like the Excel machining centre by Biesse. "The centre is extremely precise, versatile and efficient, allowing us to implement our patented process. We try to take full advantage of the considerable potential of the machine, and the fact that it is a tool capable of performing an unlimited number of precise and complex machining operations. This,when combined with an innovative material like Wood-Skin,can produce a range of unusual, unconventional results.

BIESSE MACHINES ALLOW US TO TRANSFER WOOD AND OTHER MATERIALS FROM A SOLID STATE TO A DIGITAL STATE, IN WHICH THE MATERIAL BECOMES INTELLIGENT AND IS READY TO TAKE ON OTHER FORMS, ONCE IT HAS BEEN REMOVED FROM THE MACHINE.

Giulio Masotti
Founder

WOOD-SKIN.COM

LIVE THE EXPERIENC

BIESSEGROUP.COM

Interconnected technologies and advanced services that maximise efficiency and productivity, generating new skills to serve better our customer.

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