

PRO VER

A SMART FT

NC PROCESSING CENTRE



 **BIESSE**

YEARS

 **BIESSEGROUP**

THE COMPACT MACHINE AT THE SERVICE OF ARTISAN MANUFACTURERS



THE MARKET DEMANDS

a change in manufacturing processes, enabling 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 reliable delivery times**.

BIESSE RISPONDE

with simple, innovative solutions for nesting operations.

ROVER A SMART FT is the new high-performance CNC machining centre with super-compact gantry structure, equipped with new bumpers for maximum protection. ROVER A SMART FT is designed for processing panels made from wood and derivatives. The ideal solution for artisan producers and small/medium-sized businesses who require excellent machining quality and ease of use in a small space.



ROVER A SMART FT

- ✔ A SINGLE WORK CENTRE FOR MANY TYPES OF MACHINING OPERATIONS
- ✔ EXTREMELY COMPACT AND ERGONOMIC MACHINING
- ✔ MAXIMUM FLEXIBILITY
- ✔ ACCESSIBLE CUTTING-EDGE TECHNOLOGY
- ✔ ERGONOMICS AND SAFETY FOR THE OPERATOR.

A SINGLE WORK CENTRE FOR MANY TYPES OF MACHINING OPERATIONS

Rover A SMART FT can carry out various types of machining operation, including: the nesting of small doors and furniture elements, 5-axis machining operations, scoring on solid wood, panels and doors. The machining centre enables the fully-processed finished product to be obtained using just one machine.





COMPACT AND ERGONOMIC



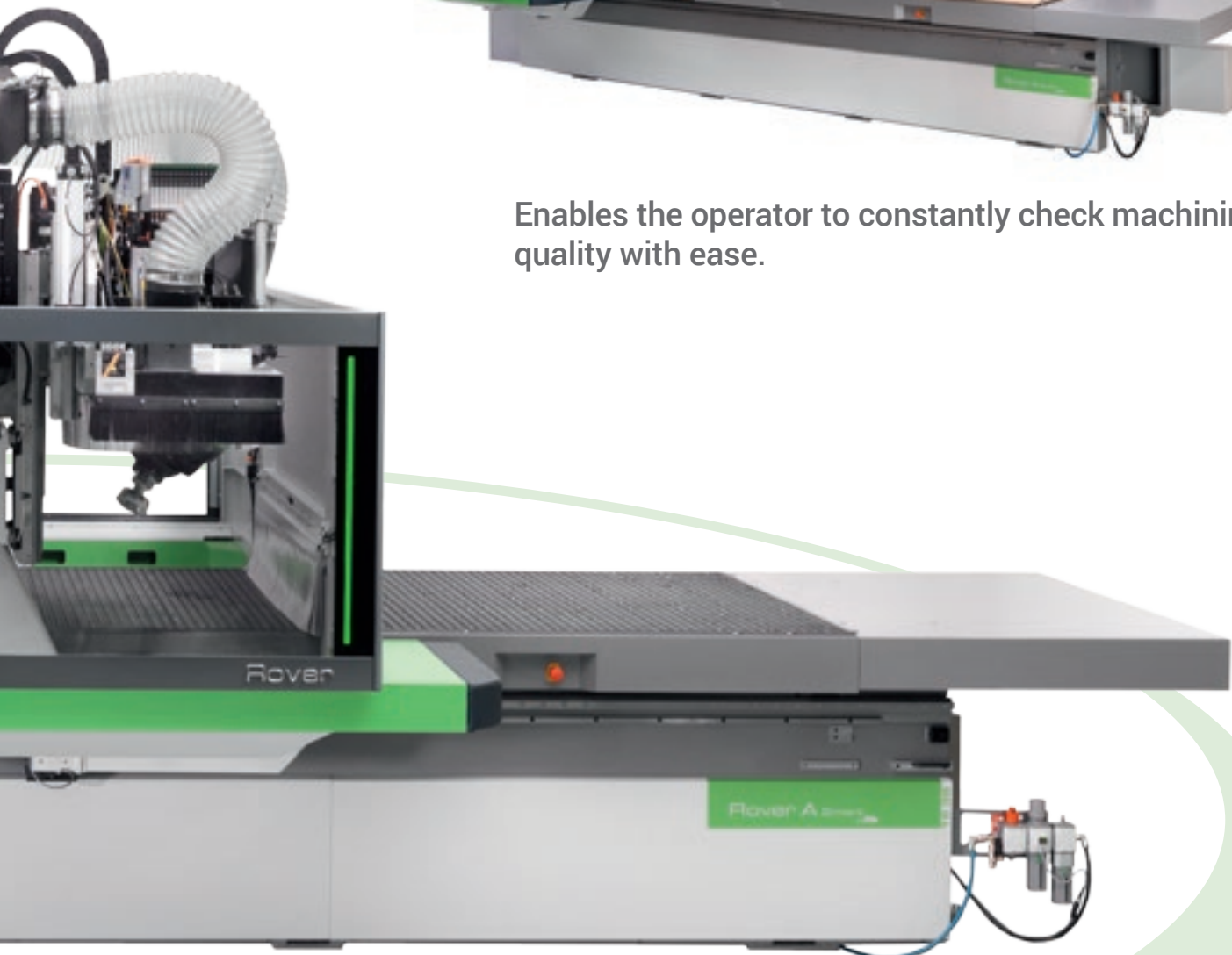
An extremely compact machining centre designed to adapt to the production space in which it is installed. Enables the operator to safely access all sides of the machine at all times, with no obstacles on the ground.



ONE OF THE MOST COMPACT SOLUTIONS ON THE MARKET.



Enables the operator to constantly check machining quality with ease.



MAXIMUM CUSTOM FLEXIBILITY

The wide range of sizes available enables panels of all dimensions typical of nesting processes to be machined, enabling customers to choose the machine that best meets their needs.



Rover A SMART FT 1224
Rover A SMART FT 1531
Rover A SMART FT 1536
Rover A SMART FT 1836
Rover A SMART FT 2231
Rover A SMART FT 2243

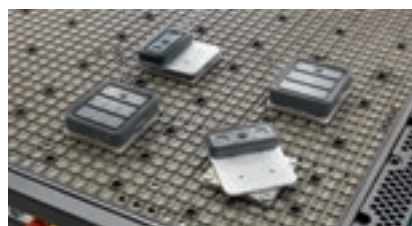
ADVANCED WORK TABLE TECHNOLOGY TO MACHINE PANELS OF DIFFERENT TYPES AND SIZES WITH THE UTMOST RELIABILITY.



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.

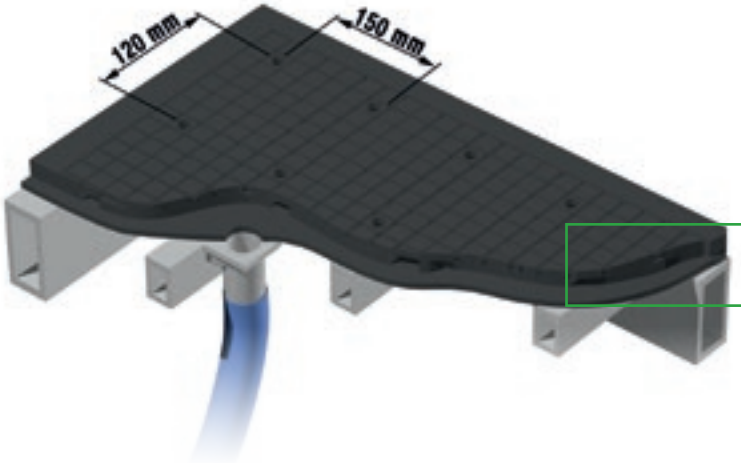


Work table in layered phenolic material with vacuum system.



Vacuum modules can be freely positioned on the FT work table with no need for special connections.

MAXIMUM PANEL SECURITY THANKS TO AN ADVANCED DISTRIBUTED VACUUM SYSTEM WITHIN THE WORK TABLE



Multi-zone technology seamlessly and automatically adapts the vacuum of the machine to the different board sizes that the customer has in his production.

VACUUM DISTRIBUTION CHAMBER



The locking of the vacuum adapts perfectly to the panel size and enables the switching from one format to another without the need for manual operations.

IDENTITY

PRACTICAL DESIGN

An innovative yet simple design is the hallmark of Biesse's distinctive identity.

The transparent polycarbonate reinforced protection door is designed to guarantee maximum visibility for the operator. Fitted with 5-colour LEDs indicating machine status, it ensures that processing phases can be easily and safely monitored.

ROVER

ACCESSIBLE CUTTING-EDGE TECHNOLOGY



The Rover A SMART FT can be fitted with the same components used on other top-of-the-range models. The electrospindle, boring head and aggregates are designed and manufactured for Biesse by HSD, the global leader in this sector.



Up to 25-spindle maximum boring capacity with integrated blade unit.

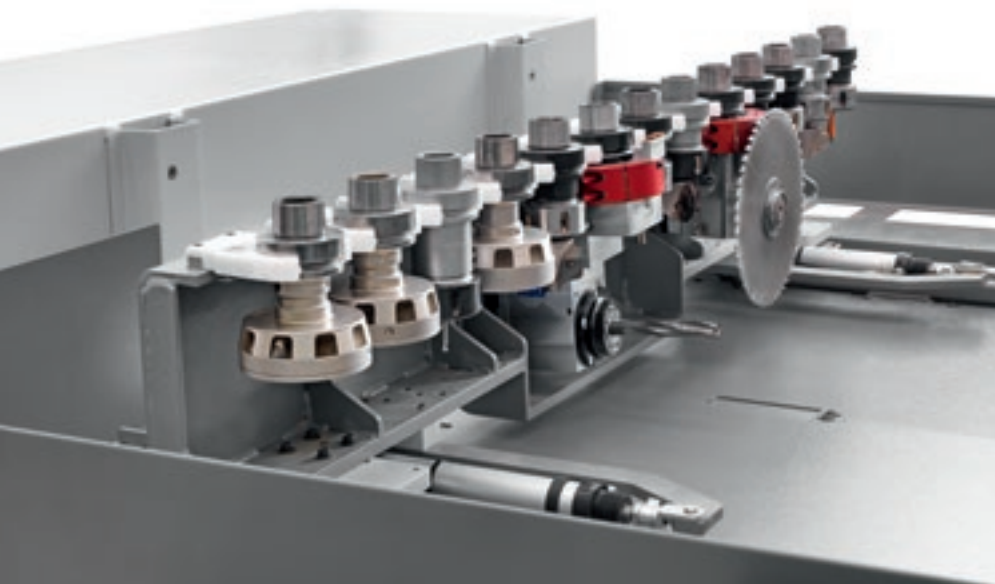


Electrospindles for every application: up to 19.2 kW HSD liquid-cooled with automatic tool change HSK F63 1,000-24,000 rpm

**C AXIS TORQUE:
QUICKER, MORE
PRECISE, MORE RIGID.**

LARGE MAGAZINE CAPACITY FOR PERFORMING ALL TYPES OF MACHINING OPERATION

Tool change magazine with up to 24 spaces, rendering all tools and aggregates available at all times with no need for operator intervention when changing tooling between machining operations.



The rack magazine with 13/16 positions provides a simple and functional solution whilst keeping the overall dimensions of the machine as compact as possible.



8-position revolver integrated into the machine beam.

A COMPLETE RANGE OF AGGREGATES



HIGH RELIABILITY AND PRECISION OVER TIME

Rover A SMART FT has a robust and well-balanced structure, designed to handle demanding machining requirements without compromising product quality.

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



Automatic lubrication is an option that ensures the continuous lubrication of the machine's main moving parts without the need for operator intervention.



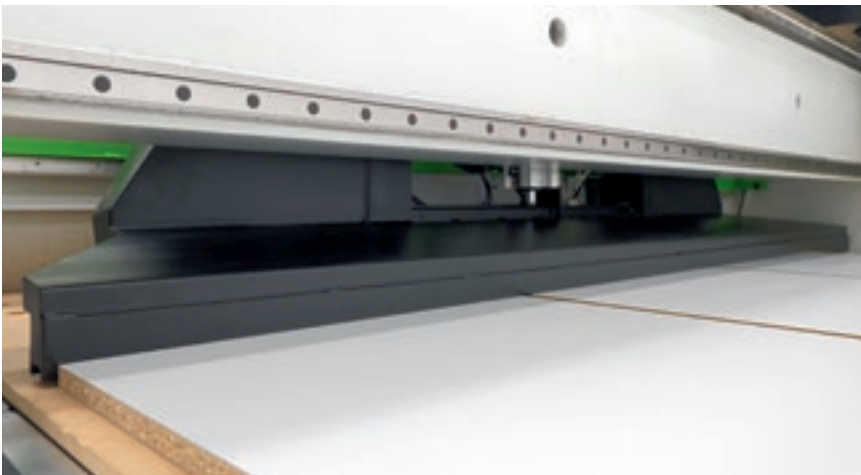
The air conditioning system for the standard electrical cabinet ensures that all electrical components remain reliable over time.



OPTIMAL CLEANING OF MACHINED COMPONENTS AND WORK AREA



Adjustable suction hood with 12 settings.



The sweeper arm with integrated suction supports the simultaneous cleaning and unloading of panels, avoiding manual intervention and thus increasing productivity.



Chip removal system positioned between the machine and the unloading belt, guaranteeing optimal panel cleanliness.

Various optional solutions are available for cleaning the panel and the area around the machine, thus saving time for the operator.

NESTING MACHINING

PRODUCTIVE ECONOMY

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

Biesse's processing 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.

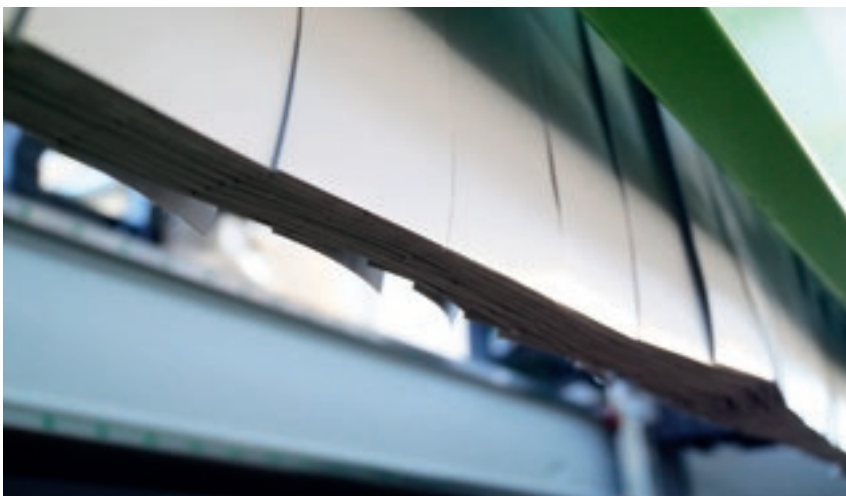


MAXIMUM ERGONOMICS AND SAFETY FOR THE OPERATOR

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



The **new full bumper** solution enables the operator to safely access the work table at all times from any side of the machine.



Overlapping lateral curtain guards protect the working unit.



Total protection of the working unit. The wide hatch provides maximum visibility of the machining operations, as well as ensuring easy access to the working units.

TECHNOLOGY AT THE SERVICE OF THE USER

New console with Windows real-time operating system and bSolid software interface, including anti-collision system.



MAXIMUM VISIBILITY OF THE WORKING UNIT FROM 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.



FULLY INTEGRATED INTO PRODUCTION FLOWS



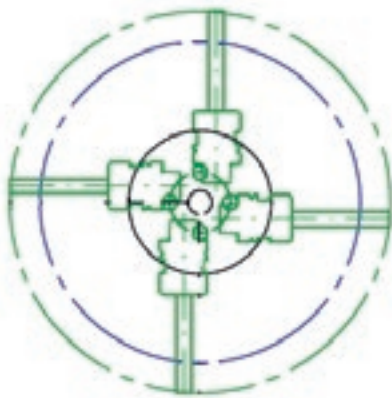
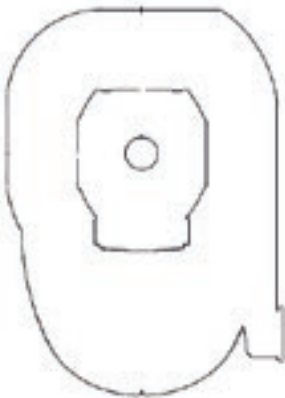
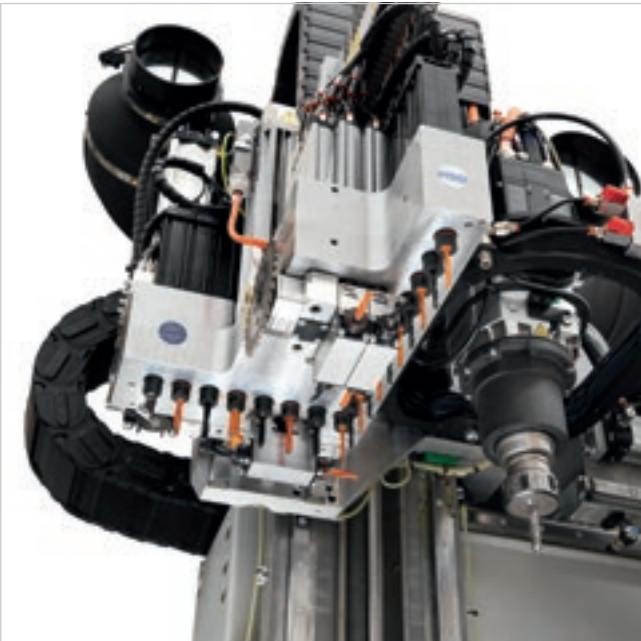
The machine can be configured with tandem loading in order to alternately process panels on opposite origins. This allows loading and unloading to be carried out while the machine is actually running.

Panel identification and traceability with in the production flow thanks to on-demand labelling system.

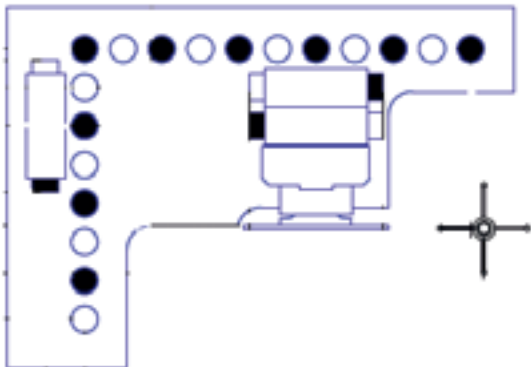


Machine downtime is dramatically reduced by the unloading belt, which enables the removal of completed panels of various thicknesses outside the machine's working area.

CONFIGURATION



13.2 kW air-cooled electrospindles / 19.2 Kw liquid-cooled 3-axis electrospindles, 13 Kw liquid-cooled 5-axis unit.



Boring heads with up to 25 electrospindles with blade - BH25.

THE MOST ADVANCED TECHNOLOGY CLOSE AT HAND



BPAD

Wi-Fi control console for performing the key functions required during the preparation of the working area and the tooling of the working units and tool holder warehouses.

The bPad is a valuable tool for supporting teleservicing, courtesy of the camera and bar code reader functions.



BTOUCH

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 bSuite 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.

BPAD AND BTOUCH ARE AN OPTIONAL FEATURE WHICH CAN ALSO BE BOUGHT AFTER PURCHASING THE MACHINE, IN ORDER TO IMPROVE THE FUNCTIONALITY AND APPLICATION OF THE TECHNOLOGY AVAILABLE.

INDUSTRY 4.0 READY



Industry 4.0 is the new industry frontier, based on digital technologies and on machines that speak to companies. The products driving this revolution can communicate and interact independently within production processes, which in turn are connected via intelligent networks.



Biesse is dedicated to transforming the factories owned by our customers into real-time factories that are ready to provide digital manufacturing opportunities. Intelligent machines and software become indispensable tools that facilitate the daily work of those who machine wood and other materials on a daily basis.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

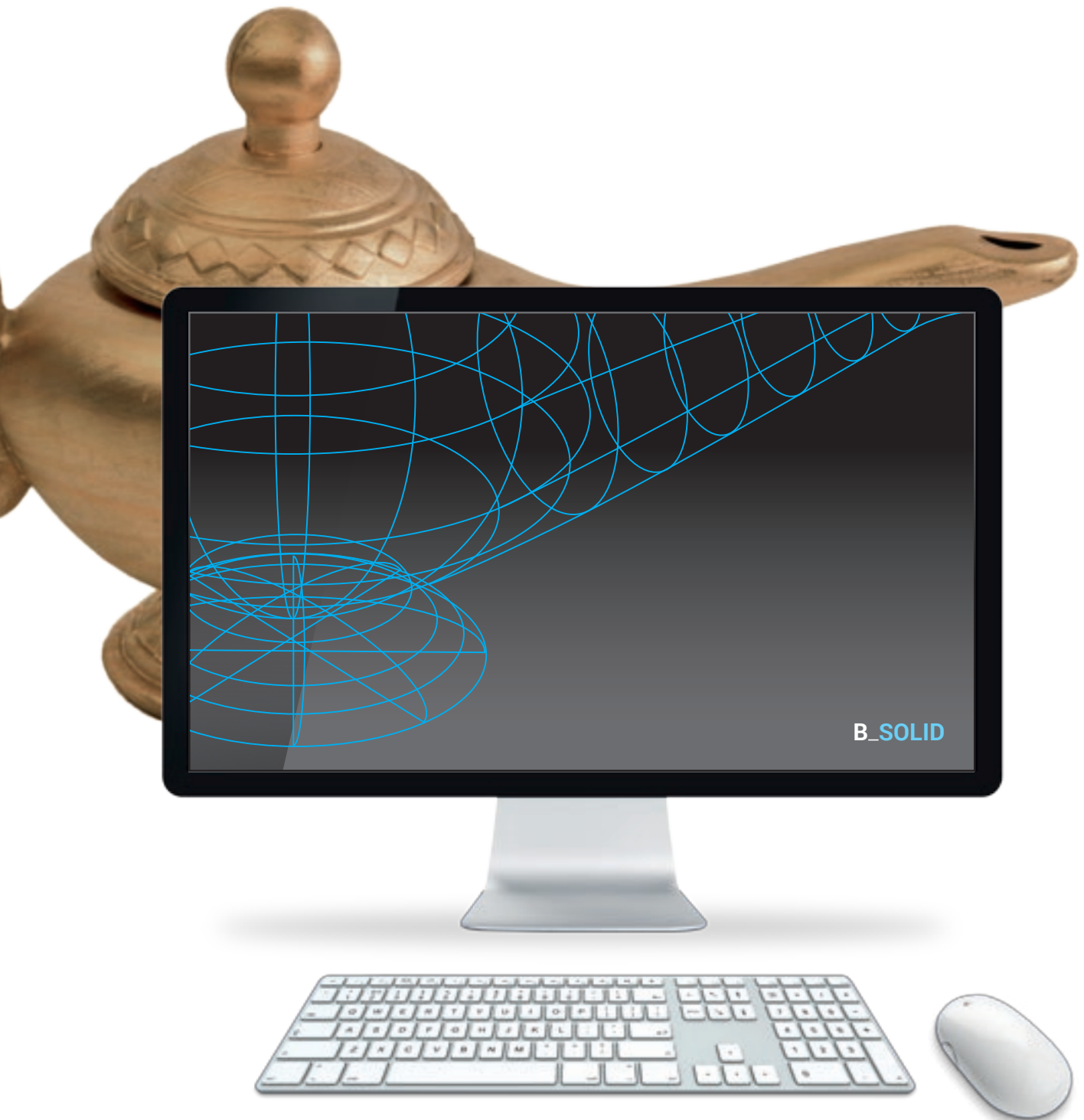


B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

- 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.



B_SOLID



REDUCED TIME AND WASTE



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

- Reduced production costs.
- Simplified work for the operator.
- Integration with company software.





IDEAS TAKE FORM AND SHAPE



B_CABINET IS A UNIQUE SOLUTION FOR MANAGING FURNITURE PRODUCTION FROM THE 3D DESIGN PHASE TO PRODUCTION FLOW MONITORING.

IT'S NOW POSSIBLE TO PLAN THE DESIGN OF A SPACE AND QUICKLY PASS FROM CREATING THE SINGLE ELEMENTS TO GENERATING PHOTO-REALISTIC CATALOGUE IMAGES, FROM GENERATING TECHNICAL PRINTS TO PRODUCING REQUIREMENT REPORTS, AND ALL IN ONE SINGLE ENVIRONMENT.

B_CABINET FOUR (SUPPLEMENTARY MODULE) MAKES IT EASY TO MANAGE ALL THE WORK PHASES (CUTTING, MILLING, BORING, EDGEBANDING, ASSEMBLY, PACKAGING), JUST WITH A CLICK.

B_CABINET FOUR INCLUDES AN ENVIRONMENT DEDICATED TO THE REAL TIME MONITORING OF THE PROGRESS OF THE PRODUCTION PHASES. THAT MEANS COMPLETE CONTROL OF THE ORDER STATUS, STEP BY STEP, THANKS TO CHARTS AND 3D IMAGES.

B_CABINET



SOPHIA

GREATER VALUE FROM MACHINES



SOPHIA is the IoT platform created by Biesse in collaboration with Accenture which enables its customers to access a wide range of services to streamline and rationalise their work management processes.

It allows alerts and indicators to be sent to the customer in real time, in relation to production, the machines used and the type of process carried out. These are detailed instructions for more efficient use of the machine.

□ **10% CUT IN COSTS**

□ **50% REDUCTION
IN MACHINE DOWNTIME**

□ **10% INCREASE
IN PRODUCTIVITY**

□ **80% REDUCTION IN PROBLEM
DIAGNOSTICS TIME**

**SOPHIA TAKES THE INTERACTION BETWEEN
CUSTOMER AND SERVICE TO A HIGHER LEVEL.**

iOT
SOPHIA

IoT - SOPHIA provides a comprehensive overview of the specific machine performance features, with remote diagnostics, machine stoppage analysis and fault prevention. The service includes a continuous connection with the control centre, the option of calling for assistance from within the customer app (such calls are managed as priorities), and an inspection visit for diagnostic and performance testing within the warranty period. Through SOPHIA, the customer receives priority technical assistance.

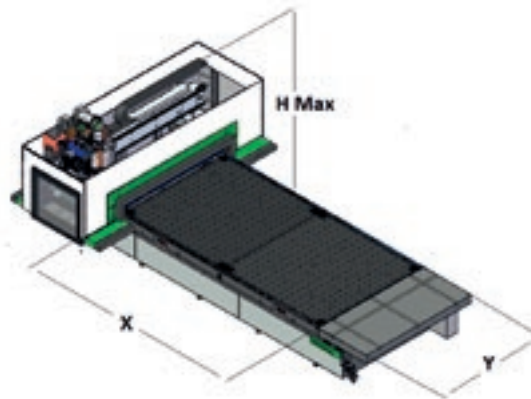
PARTS
SOPHIA

PARTS SOPHIA is the easy new, user-friendly and personalised tool for ordering Biesse spare parts. The portal offers customers, dealers and branches the chance to navigate within a personalised account, consult the constantly updated documentation of the machines purchased, and create a spare parts purchase basket indicating the real time availability in the warehouse and the relative price list. In addition, the progress of the order can be monitored at all times.

 **BIESSE**

in collaboration with  **accenture**

TECHNICAL DATA



WORKING FIELD AND HEIGHT Z

	X		Y		PENDULUM WITHOUT SUSPENSION (4Ax / 5Ax)		Z		H max	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Rover A FT 1224	2465	97	1260	50	-	-	200/250	8/10	2750	108
Rover A FT 1531	3100	122	1560	61	1126 / 1069	44 / 42	200/250	8/10	2750	108
Rover A FT 1536	3765	148	1560	61	1459 / 1401	57 / 55	200/250	8/10	2750	108
Rover A FT 1836	3765	148	1875	74	1459 / 1401	57 / 55	200/250	8/10	2750	108
Rover A FT 2231	3100	122	2205	87	1126 / 1069	44 / 42	200/250	8/10	2750	108
Rover A FT 2243	4300	169	2205	87	1726 / 1669	68 / 66	200/250	8/10	2750	108

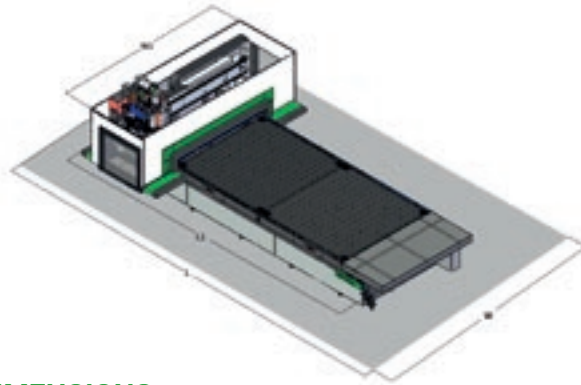
SPEED

m/min - ft/min	X		Y		Z		VECTOR SPEED	
	25	82	60	197	20	66	65	213

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.

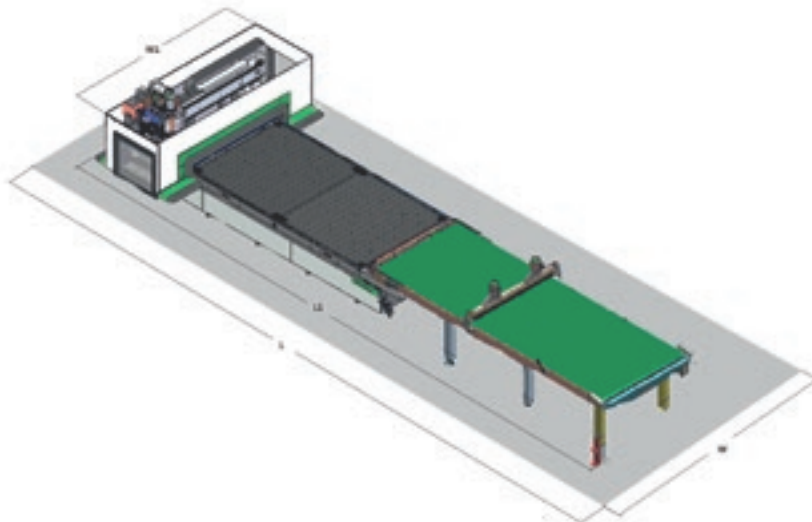
Weighted sound pressure level A (LpA) during machining at the operator's workstation on the vane-pump machine Lpa=79dB(A) Lwa=96dB(A) Weighted sound-pressure level A (LpA) at the operator's workstation and sound power level (LwA) during machining on the cam-pump machine Lwa=83dB(A) Lwa=100dB(A) Measurement uncertainty K dB(A) 4.

The measurement was carried out in compliance with UNI EN 848-3:2007, UNI EN ISO 3746: 2009 (sound power) and UNI EN ISO 11202: 2009 (sound pressure levels at workstation) during panel machining. The noise levels shown are emission levels and do not necessarily correspond to safe operation levels. Despite the fact that there is a relationship between emission and exposure levels, this may not be used in a reliable manner to establish whether further measures need to be taken. The factors determining the exposure level for the workforce include length of exposure, work environment characteristics, other sources of dust and noise, etc. i.e. the number of other adjoining machines and processes. At any rate, the above information will enable the operator to better evaluate dangers and risks.



OVERALL STAND-ALONE DIMENSIONS

ACCESS FROM ALL SIDES	L		L1		W		W1	
	CE / NCE		CE / NCE		CE / NCE		CE / NCE	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover A FT 1224	6380	251	5379	212	4136	163	3136	123
Rover A FT 1531	7020	276	6019	237	4436	175	3436	135
Rover A FT 1536	7680	302	6680	263	4436	175	3436	135
Rover A FT 1836	7680	302	6680	263	4752	187	3752	148
Rover A FT 2231	7020	276	6019	237	5082	200	4082	161
Rover A FT 2243	8210	323	7215	284	5082	200	4082	161



OVERALL DIMENSIONS OF UNLOADING BELT ONLY

ACCESS FROM ALL SIDES	L		L1		W		W1	
	CE / NCE		CE / NCE		CE / NCE		CE / NCE	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover A FT 1224	8680	342	7779	306	4136	163	3136	123
Rover A FT 1531	9870	389	8965	353	4436	175	3436	135
Rover A FT 1536	11210	441	10306	406	4436	175	3436	135
Rover A FT 1836	11210	441	10306	406	4752	187	3752	148
Rover A FT 2231	9870	389	8965	353	5082	200	4082	161
Rover A FT 2243	12270	483	11367	448	5082	200	4082	161

SERV ICE & PARTS

Direct, seamless co-ordination of service requests between Service and Parts. Support for Key Customers by dedicated Biesse personnel, either in-house and/or at the customer's site.

BIESSE SERVICE

- ✔ Machine and system installation and commissioning.
- ✔ Training centre dedicated to Biesse Field engineers, subsidiary and dealer personnel; client training directly at client's site.
- ✔ Overhaul, upgrade, repair and maintenance.
- ✔ Remote troubleshooting and diagnostics.
- ✔ Software upgrade.

500

Biesse Field engineers in Italy and worldwide.

50

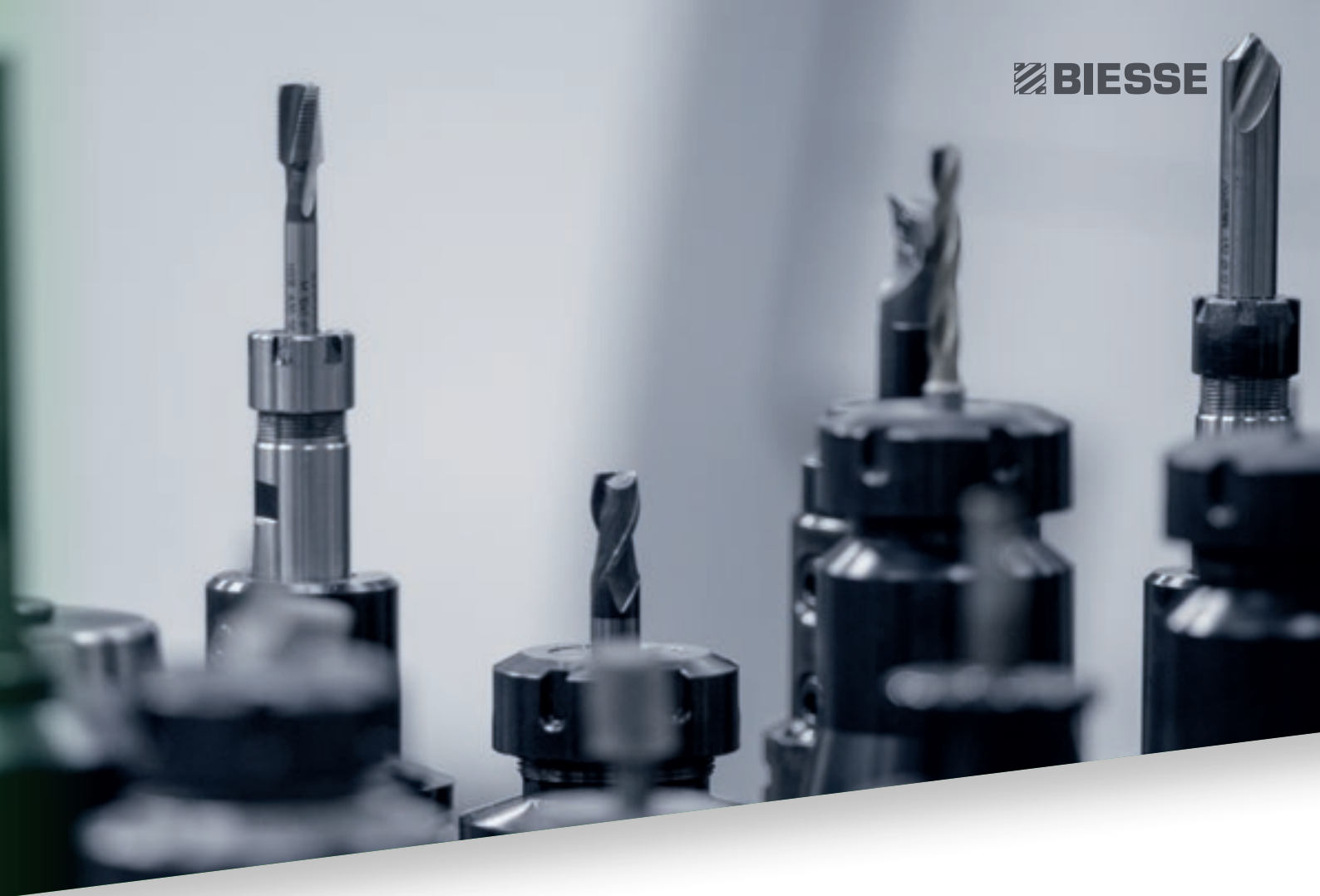
Biesse engineers manning a Teleservice Centre.

550

certified Dealer engineers.

120

training courses in a variety of languages every year.

A close-up photograph of several metal drill bits and tool components, arranged in a row. The bits are of different sizes and designs, some with black coatings. The background is a soft, out-of-focus grey.

The Biesse Group promotes, nurtures and develops close and constructive relationships with customers in order to better understand their needs and improve its products and after-sales service through two dedicated areas: Biesse Service and Biesse Parts. With its global network and highly specialized team, it offers technical service and machine/component spares anywhere in the world on-site and 24/7 on-line.

BIESSE PARTS

- ✔ Original Biesse spares and spare kits customized for different machine models.
- ✔ Spare part identification support.
- ✔ Offices of DHL, UPS and GLS logistics partners located within the Biesse spare part warehouse, with multiple daily pick-ups.
- ✔ Order fulfillment time optimized thanks to a global distribution network with de-localized, automated warehouses.

92%
of downtime machine orders fulfilled
within 24 hours.

96%
of orders delivered in full on time.

100
spare part staff in Italy and worldwide.

500
orders processed every day.

MADE WITH BIESSE

MATON AND BIESSE MAKE MUSIC TOGETHER

With more than 1200 models of guitars 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," states Patrick Evans, Head of Product Development at Maton. The evolution in production techniques and research into the most efficient software continues, prompting Maton to hunt for new solutions that can better respond to emerging needs. In 2008, after considering the pros and cons of a range of manufacturers, Maton chose Biesse. Maton's production needs incorporate technological requirements and artisan skills; the right balance of these two allows them to achieve the highest levels of quality and performance. A great guitar is both a work of art and a fine 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 solutions for machining processes, 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.

In 1995, the company installed their first CNC machine. They now have 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 working units. Biesse is much more than a manufacturer of machinery for producing kitchens. Their impressive range of machines can process an astounding range of materials and products. "In creative hands," commented Patrick Evans, "Biesse becomes the instrument of a true craftsman. The key is to identify the right machine for the job. We found we can accomplish much more than we thought on a Biesse machine." Maton also uses the two Biesse machines to create new product prototypes; the most complex shapes, and almost every individual part which makes up a Maton guitar. Patrick confirms that Maton uses the Biesse CNC machine at high speeds even on the most complex parts, such as the magnificent fingerboard. "We need enough flexibility to be able to switch from one model to another very quickly, and Biesse allows us to do this very effectively." Biesse gives users the creative freedom to pro-

duce virtually any concept, both quickly and efficiently. "With the Biesse's CNC machine," Patrick continues, "you can turn your ideas into reality much faster. Thanks to the flexibility provided by Biesse machines, we can produce two fingerboard prototypes in seven minutes! If we made them by hand, it would take a whole day. Using Biesse machines has allowed us to create eight new guitar models this year alone." 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 handfinished by a dedicated and qualified team of luthiers. Maton has demonstrated that it is possible to produce a guitar in Australia with a worldwide reputation for quality, using Australian timber and technologies. Maton knows exactly how to design and build a unique, one-of-a-kind product, a well-made guitar, and with Biesse as valued partner, the best guitars in the world are brought to life.

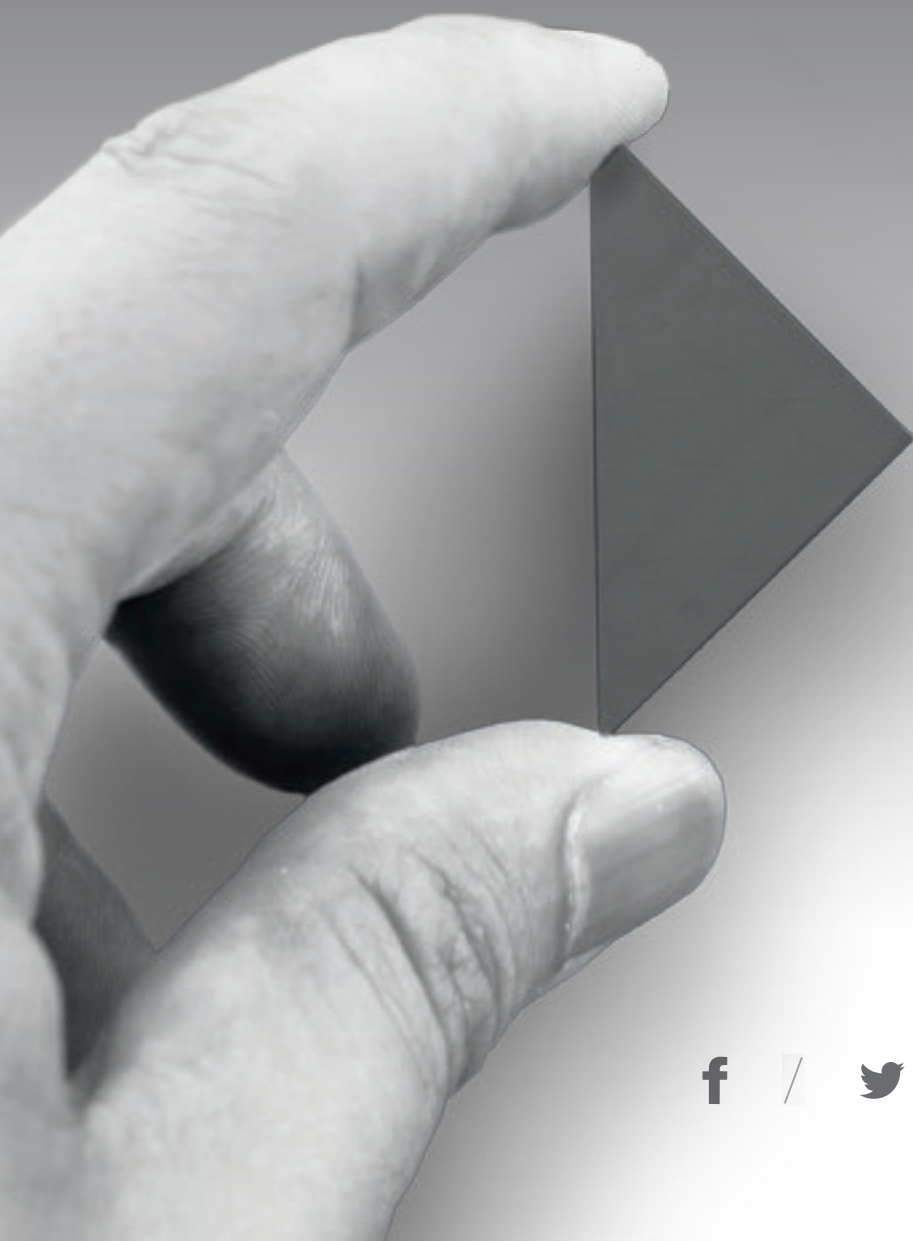
Taken from an interview with Patrick Evans, head of Product Development at Maton Guitars - Australia

THE SAGRADA FAMILIA 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 Familia site shall manage to be effective, timely and accurate thanks to the on-line service that the company offers to its customers.

LIVE THE EXPERIENC



BIESSEGROUP.COM

E



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

LIVE THE BIESSE GROUP EXPERIENCE AT OUR CAMPUSES ACROSS THE WORLD.

 **BIESSEGROUP**

