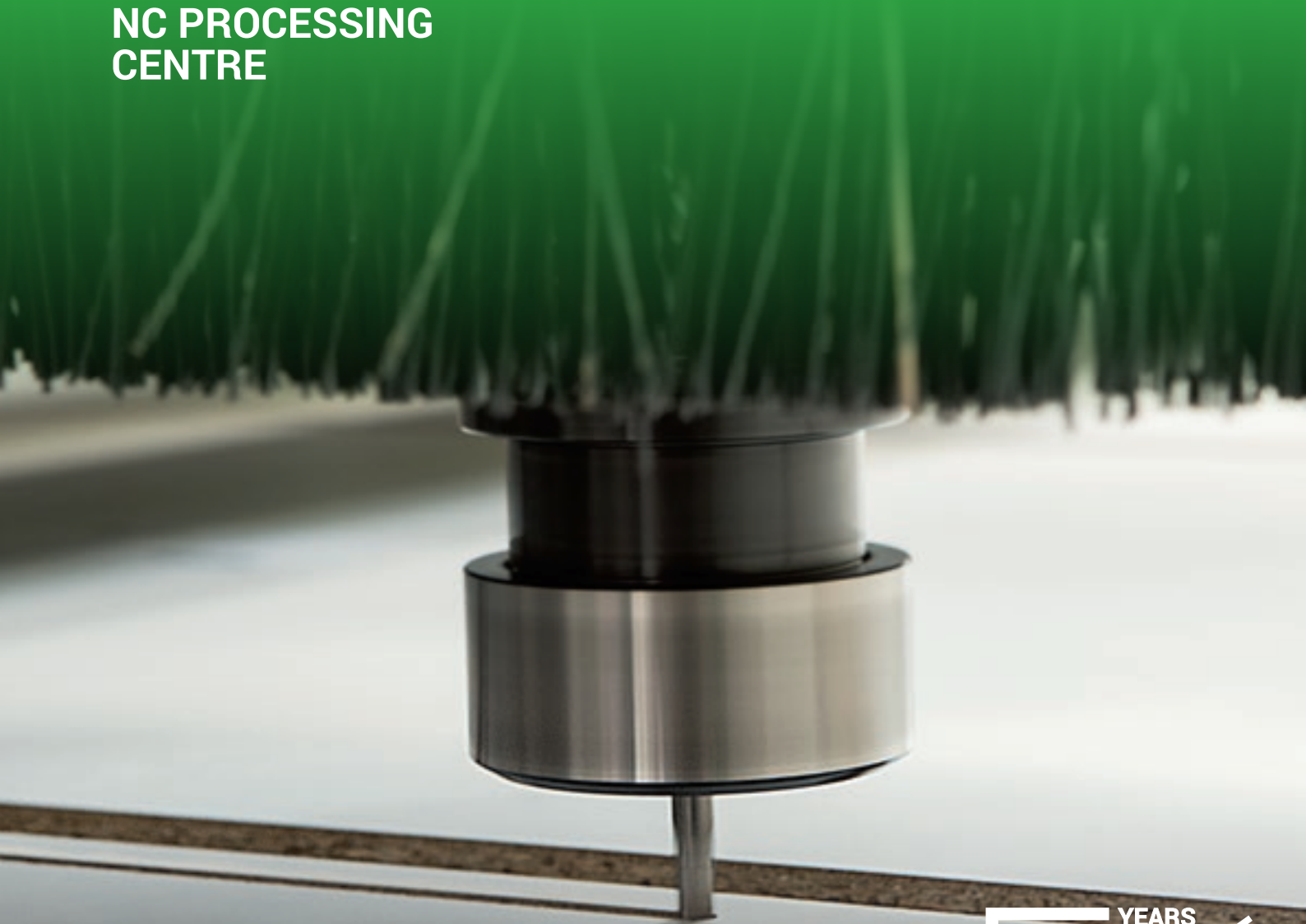


RO VER SFT

NC PROCESSING
CENTRE



 **BIESSE**


 **BIESSEGROUP**

FULL PRODUCTION AT A COMPETITIVE PRICE



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 customization with quick and reliable delivery times.

BIESSE MEETS

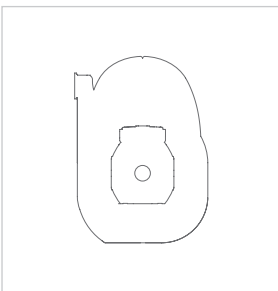
these requirements with high-tech, innovative solutions for nesting operations. **Rover S FT** is the gantry machining center designed for Nesting applications of wood and wood based materials, but also plastic based and non ferrous materials machining.



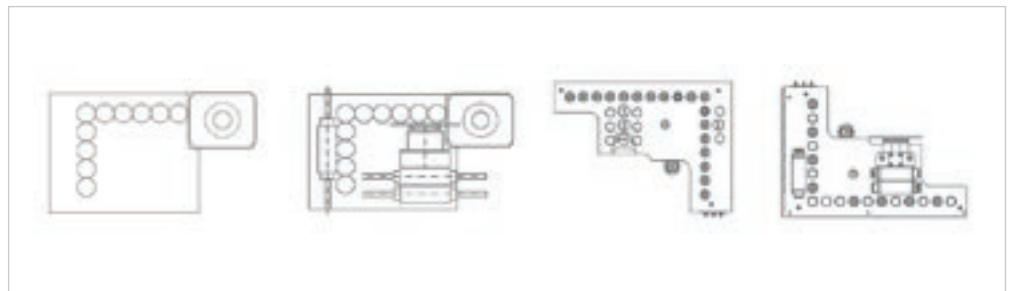
ROVER SFT

- ✓ HIGH PRECISION AND RELIABILITY OVER TIME
- ✓ MAXIMUM PRODUCTIVITY, MINIMUM FOOTPRINT
- ✓ HIGH PROCESSING FLEXIBILITY
- ✓ MACHINE CUSTOMIZATION DEPENDING ON DIFFERENT PRODUCTION REQUIREMENTS.

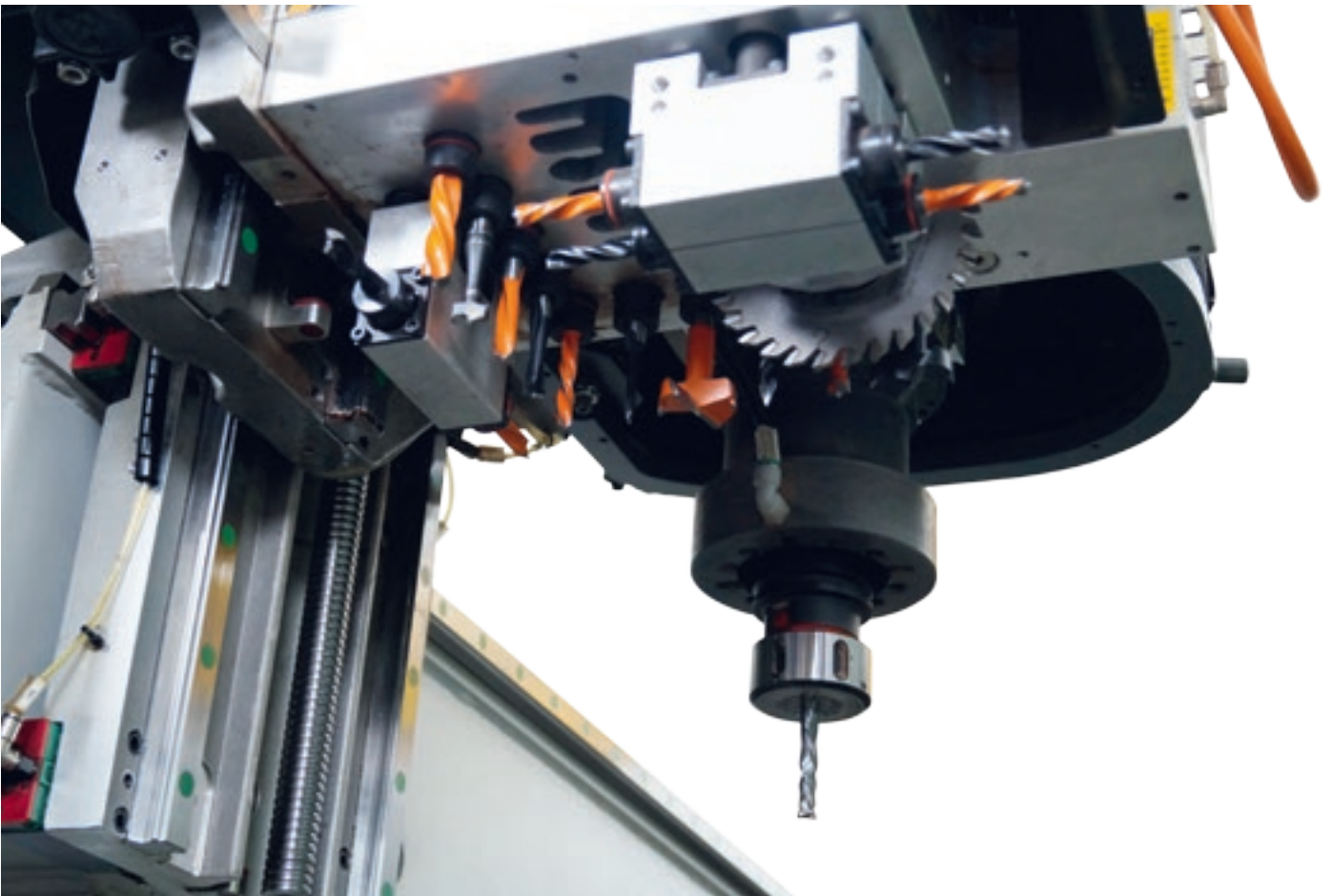
MACHINE CUSTOMIZATION DEPENDING ON DIFFERENT PRODUCTION REQUIREMENTS

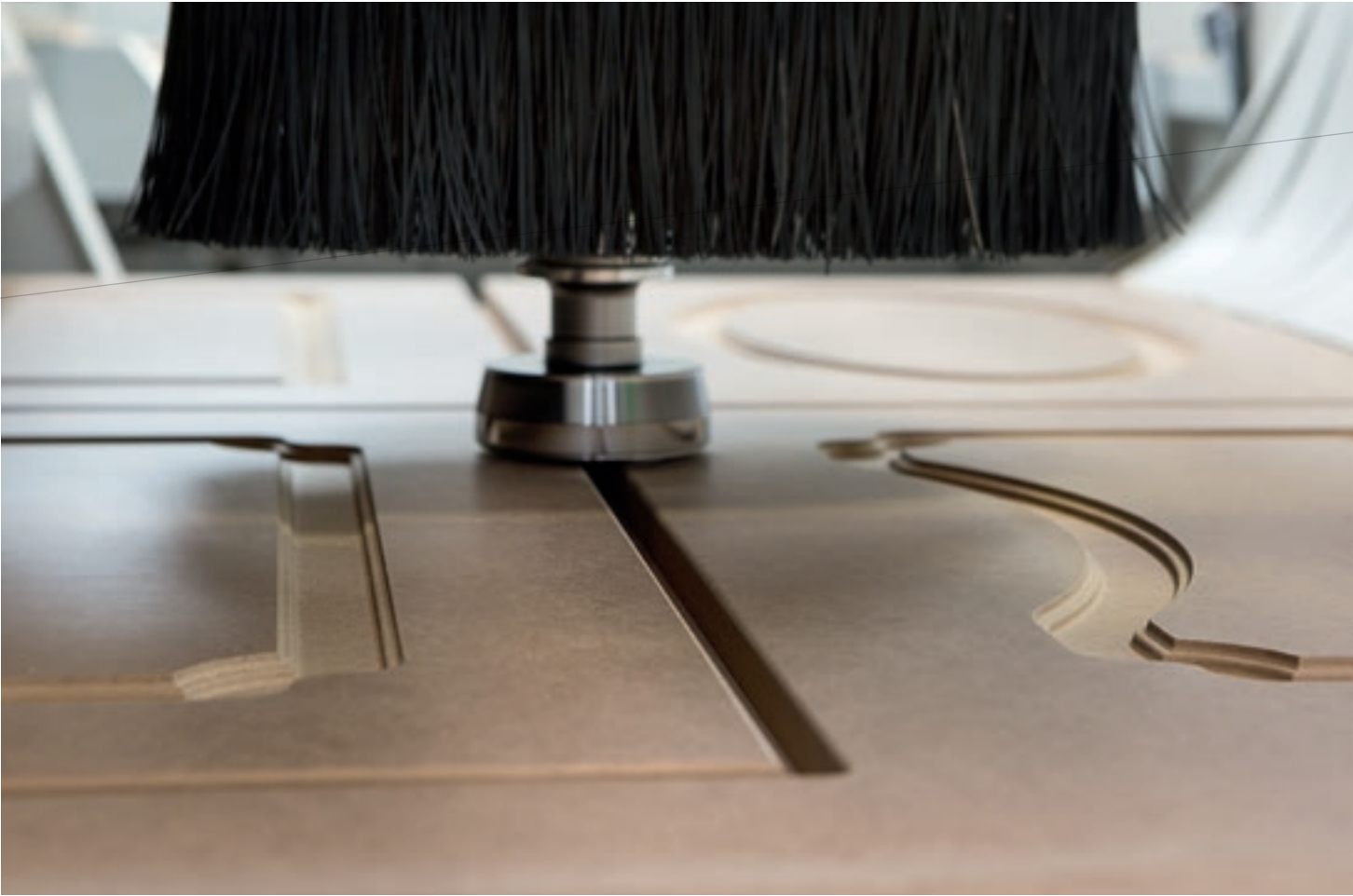


Electrospindles up to
19.2 kW.



Boring heads available from 10 to 25 spindles: BH10 - BH17L - BH18 - BH25L





HIGH PRECISION AND RELIABILITY OVER TIME

**Robust, balanced structure ensuring maximum stability.
Specially-designed technologies to guarantee precision and rigidity.**



The heavy monolithic base guarantees solidity and absence of vibration, for consistent product quality over time.

The Gantry structure with dual engine is designed to increase precision and reliability standards for the execution of machining 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 **double X-axis motorisation** supports high speeds and accelerations whilst ensuring high finish precision and quality.

Higher motor power increases acceleration at 3 m/s² and speed 85 m/min.



HIGH PROCESSING FLEXIBILITY

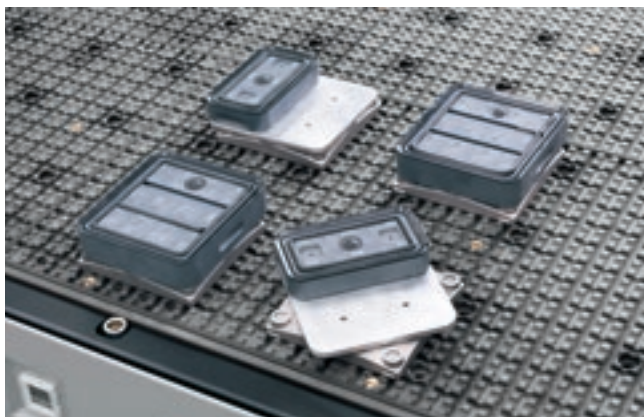


The wide range of sizes available enables panels of all dimensions typical of nesting processes to be machined, enabling customers to choose the machine that best meets their needs.

Rover S FT 1224
Rover S FT 1236
Rover S FT 1536
Rover S FT 1836
Rover S FT 2231
Rover S FT 2243



ADVANCED WORKTABLE TECHNOLOGY TO MACHINE PANELS OF DIFFERENT TYPES AND SIZES WITH THE UTMOST RELIABILITY

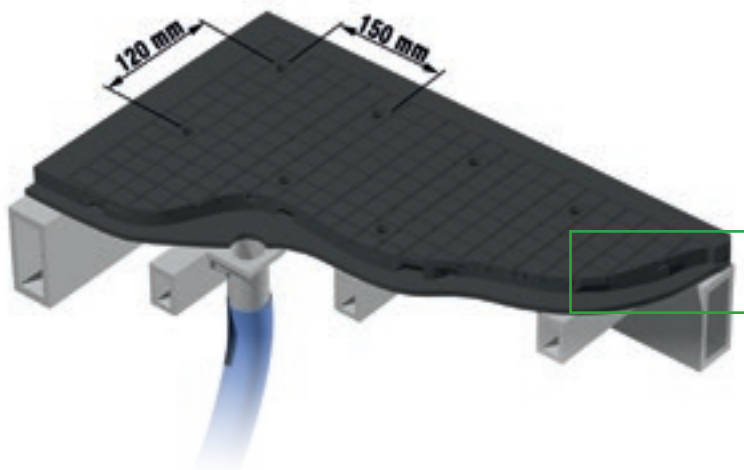


Stratified phenolic table with vacuum system.



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.

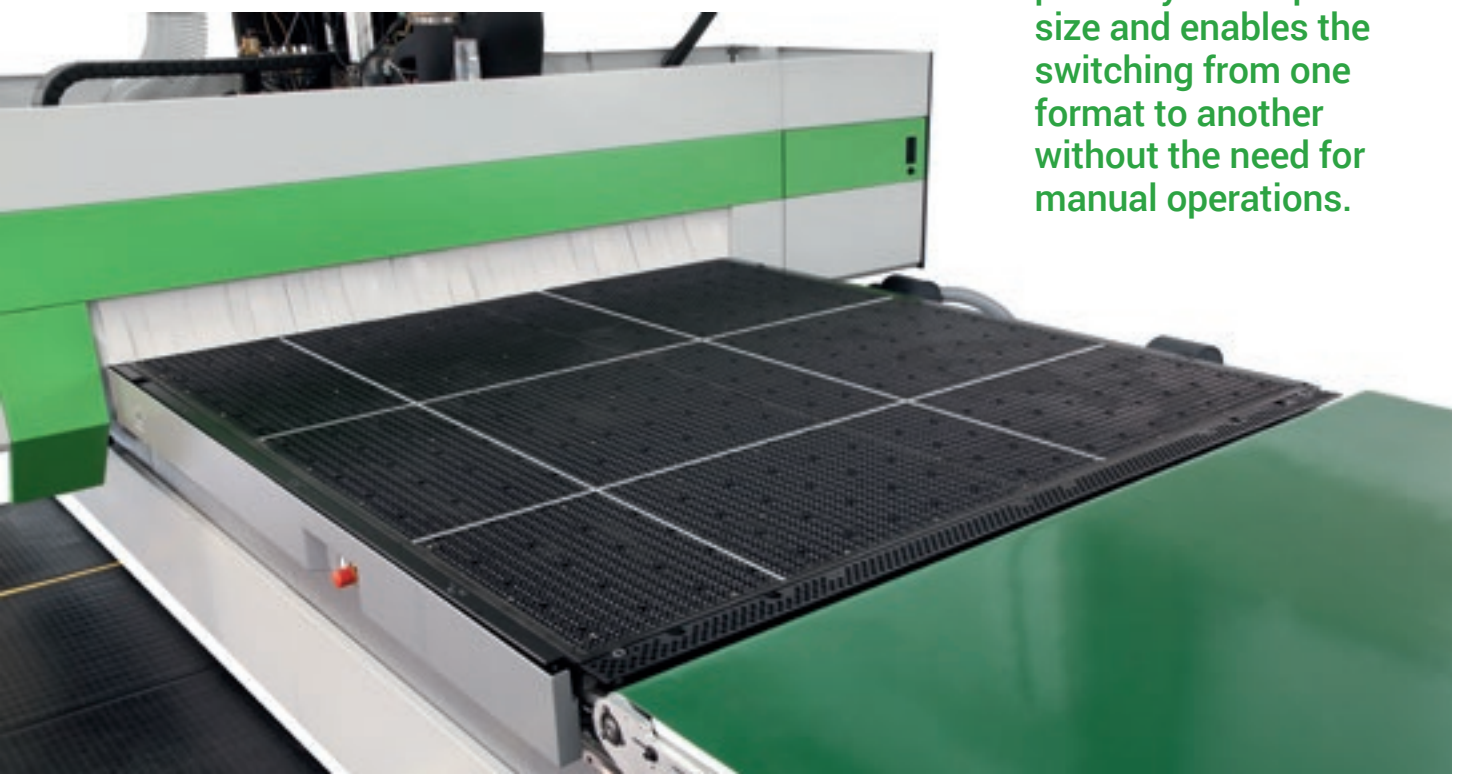
MAXIMUM PANEL SECURITY THANKS TO AN ADVANCED DISTRIBUTED VACUUM SYSTEM WITHIN THE WORK TABLE.



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.



NESTING MACHINES

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.



BIESSE'S EXPERIENCE AT THE SERVICE OF CRAFTSPEOPLE

A specific Research & Development team creates pioneering solutions to meet the market requirements and offer cutting edge technology that is reliable and guarantees first class results. Biesse uses the same high-tech components for all machines in its products range.



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



C AXIS TORQUE
Quicker, more precise, more rigid.

A COMPLETE RANGE OF AGGREGATES



REDUCED TOOLCHANGE OVERTIME



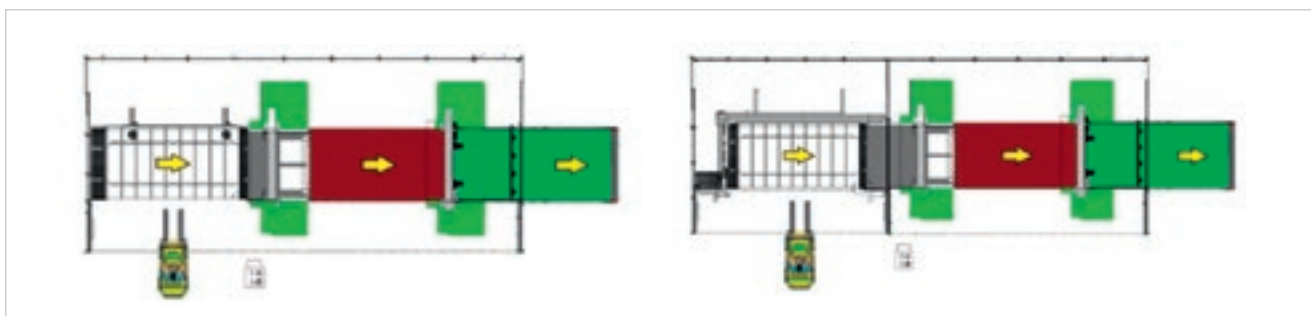
Up to 20 aggregates and tools available on the machine. It is possible to switch from one machining operation to the next with no need for operator intervention for tool changes.



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.

MAXIMUM PRODUCTIVITY MINIMUM FOOTPRINT

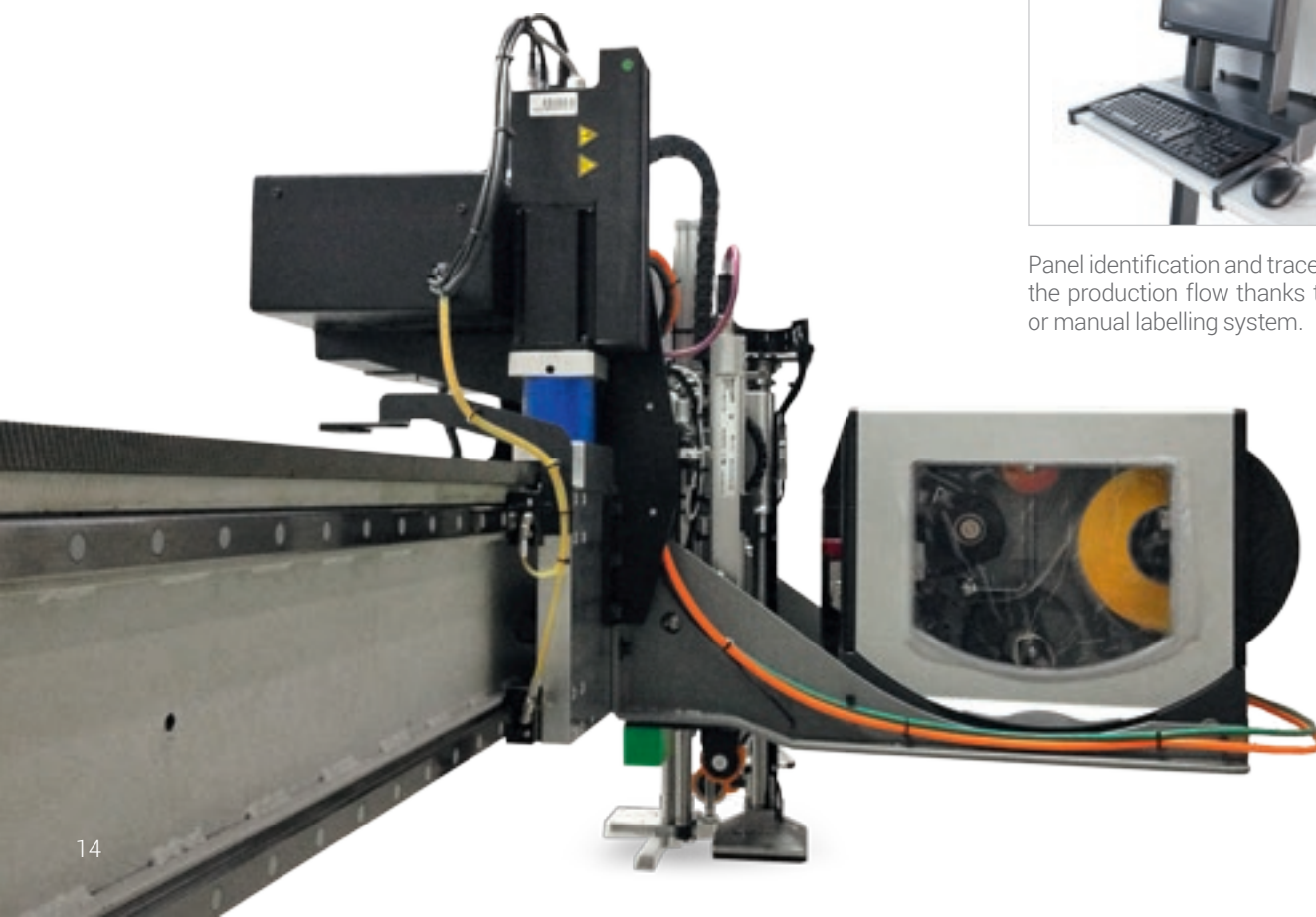
Biesse offers technological solutions for loading and unloading panels that automate and optimise the machining process with a footprint that is reduced by up to 40%.



Loading/unloading is carried out simultaneously allowing the operator to remove completed components from the unloading station with the utmost safety whilst the machine is already processing the next panel.



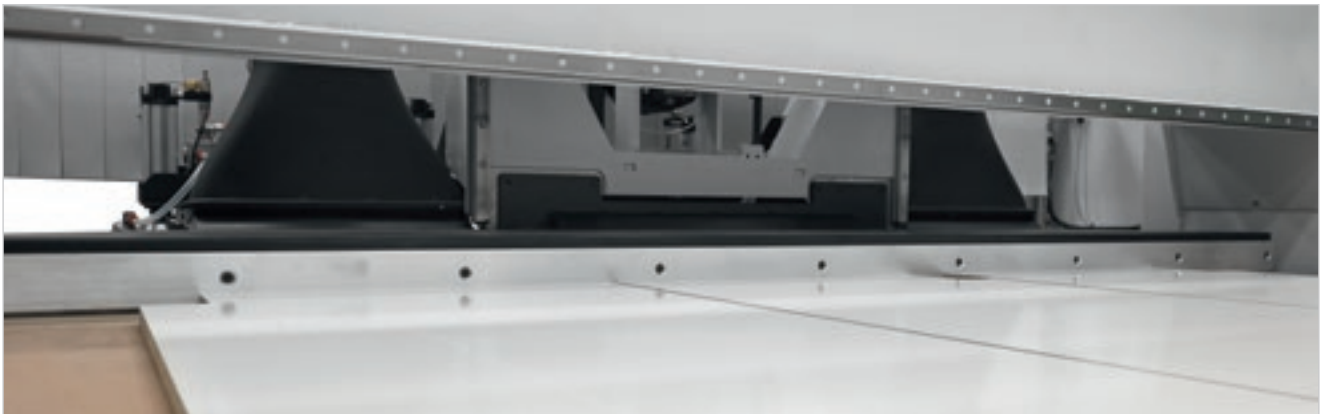
Panel identification and traceability within the production flow thanks to automatic or manual labelling system.



LOADING AND UNLOADING SOLUTIONS

The loading system enables the handling of both porous and non-porous materials of thicknesses greater than 3mm, whilst also offering automatic labelling.

Panel loading system with scissor lift and automatic panel alignment. The system's ease of use ensures long term reliability.



The separation systems can manage loads of breathable materials.

INTE GRA TION

CONTINUOUS EVOLUTION

Integrated lines and robotised cells constantly redesign the production methods of tomorrow.

Biesse technologies are increasingly sophisticated but always user-friendly, able to maximise the competitiveness of customers wanting to increase their productivity but with reduced times and costs.

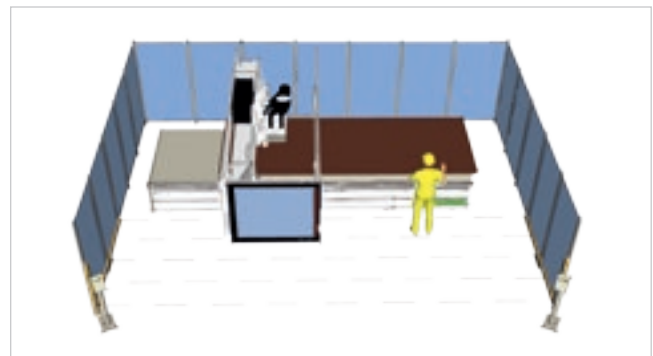


COMPACT FOOTPRINT AND SUPERIOR ERGONOMIC PERFORMANCE

Rover S FT in the stand-alone version is the most compact solution on the market. It enables the operator to access the machines' three sides, guaranteeing maximum ergonomic comfort and safety.



INCREASING MANUFACTURING CAPACITY



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.

OPTIMAL CLEANING OF MACHINED COMPONENTS AND WORK AREA

Various automatic machine and component cleaning options are available which saves operator time.



Adjustable suction hood with 6 settings.



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



Additional intake manifold kit for unloading belt consisting of 2 suction hoods, on the top and one at end of the belt.



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.

MAXIMUM OPERATOR SAFETY

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



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



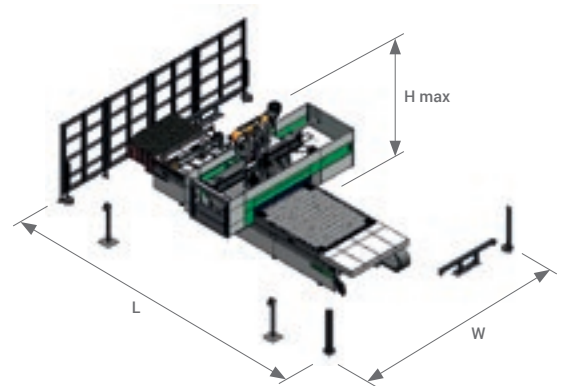
PC with Windows real-time operating system and bSolid software interface, including anti-collision system.



Overlaid layers of side curtain guards to protect the working unit, which are flexible to enable the machine to work at maximum speed in total safety.



TECHNICAL SPECIFICATION



Machine stand alone,
3 sides access

FOOTPRINT

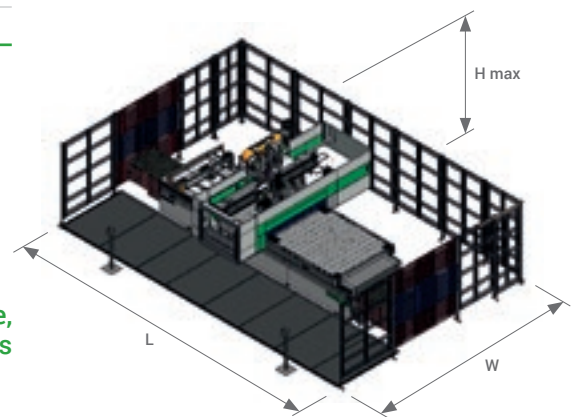
	L		W		H	H max
	mm/inch					
	NCE	CE	NCE	CE		
Rover S FT 1224	6309/248	6567/259	4760/187	5117/187	985/39	2445/96
Rover S FT 1236	7609/300	7867/310	4760/187	5117/187	985/39	2445/96
Rover S FT 1536	7609/300	7867/310	5010/197	5387/197	985/39	2445/96
Rover S FT 1836	7609/300	7867/310	5210/205	5687/205	985/39	2445/96
Rover S FT 2231	6949/274	7207/284	5510/217	6060/217	985/39	2445/96
Rover S FT 2243	8130/320	8385/330	5510/217	6060/217	985/39	2445/96

SPEED

	X	Y	Z
m/min	60	60	25
foot/min	196,9	196,9	82,0

VECTORIAL SPEED

	X
m/min	84,9
foot/min	278,4

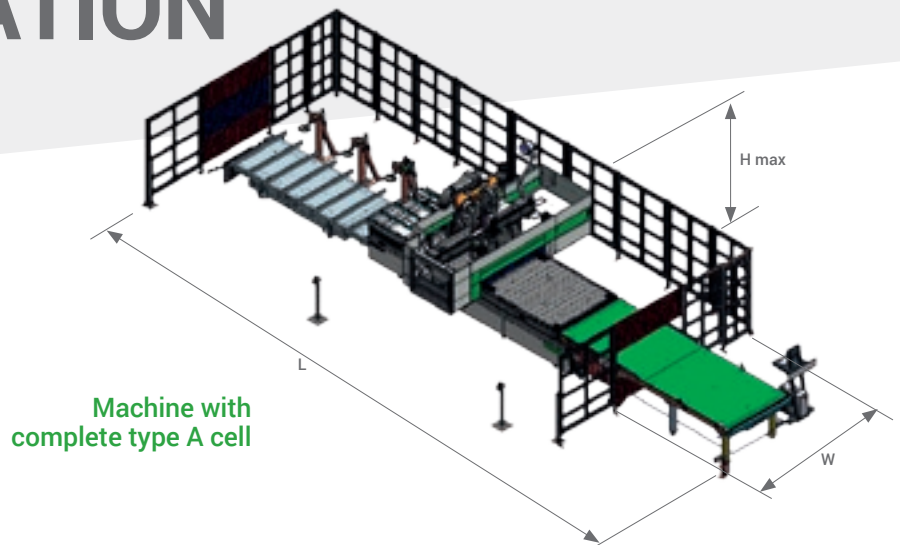


Machine stand alone,
front side access

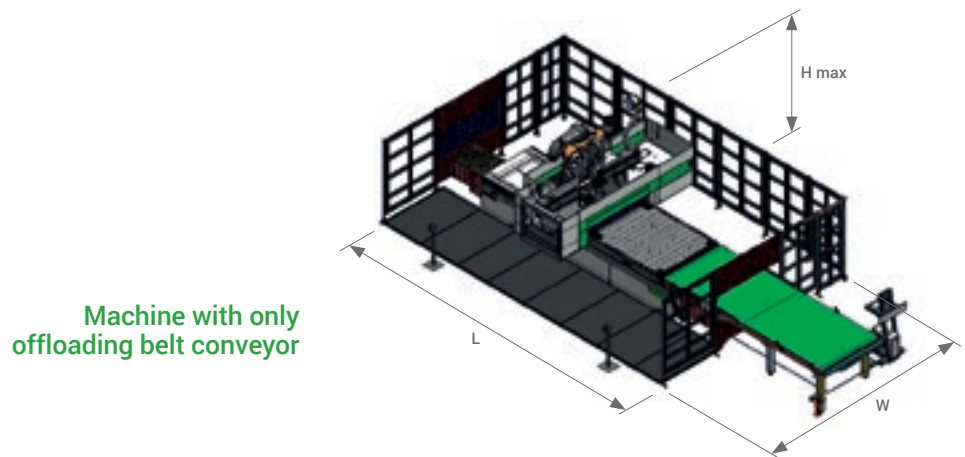
FOOTPRINT

	L		W		H	H max
	mm/inch					
	NCE	CE	NCE	CE		
Rover S FT 1224	6475/255	6525/275	4502/177	4734/186	985/39	2445/96
Rover S FT 1236	7775/306	7828/308	4502/177	4734/177	985/39	2445/96
Rover S FT 1536	7775/306	7828/308	5002/197	5064/199	985/39	2445/96
Rover S FT 1836	7775/306	7828/308	5197/205	5334/210	985/39	2445/96
Rover S FT 2231	7075/279	7155/282	5497/216	5724/225	985/39	2445/96
Rover S FT 2243	8320/328	8338/328	5497/216	5724/225	985/39	2445/96

TECHNICAL SPECIFICATION



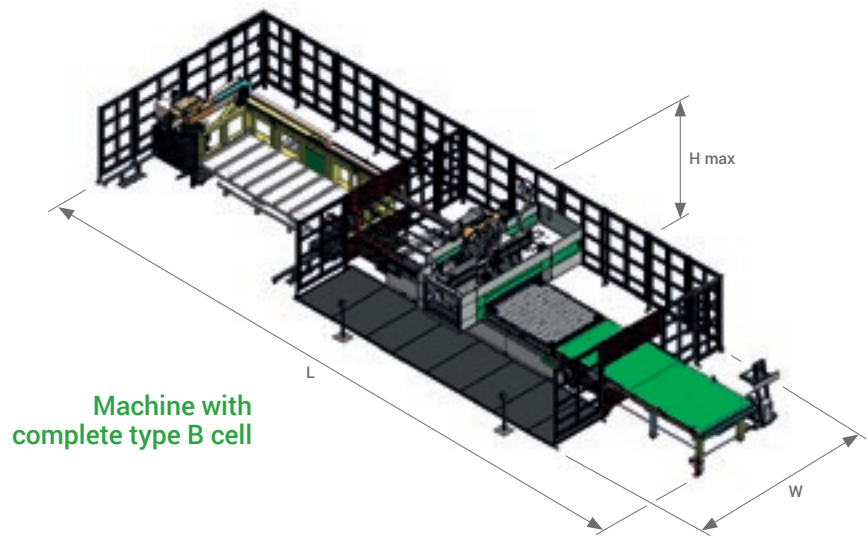
FOOTPRINT	L		W		H	H max
	mm/inch					
	NCE	CE	NCE	CE		
Rover S FT 1224	10065/396	10011/394	4502/177	4734/186	985/39	2445/96
Rover S FT 1236	13769/542	13773/542	4502/177	4734/186	985/39	2445/96
Rover S FT 1536	13769/542	13773/542	5002/197	5064/199	985/39	2445/96
Rover S FT 1836	13780/543	13773/542	5197/205	5334/210	985/39	2445/96
Rover S FT 2231	11787/464	11814/465	5497/216	5724/225	985/39	2445/96
Rover S FT 2243	15451/608	15398/606	5497/216	5724/225	985/39	2445/96



FOOTPRINT	L		W		H	H max
	mm/inch					
	NCE	CE	NCE	CE		
Rover S FT 1224	8135/320	8155/321	4502/177	4734/186	985/39	2445/96
Rover S FT 1236	10644/419	10674/420	4502/177	4734/177	985/39	2445/96
Rover S FT 1536	10644/419	10674/420	5002/197	5064/199	985/39	2445/96
Rover S FT 1836	10644/419	10674/420	5197/205	5334/210	985/39	2445/96
Rover S FT 2231	9280/365	9339/368	5497/216	5724/225	985/39	2445/96
Rover S FT 2243	11701/461	11729/462	5497/216	5724/225	985/39	2445/96

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.

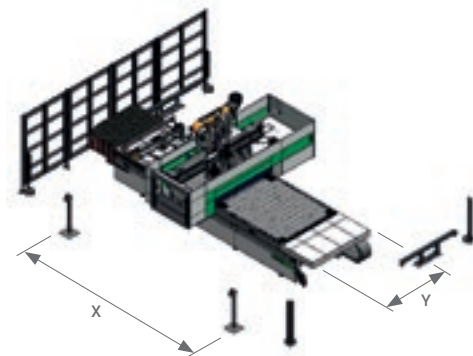
A weighted sound pressure level (LpA) during machining for operator workstation on vane-pump machine Lpa=79dB(A) Lwa=96dB(A) A-weighted sound-pressure level (LpA) for operator workstation and sound power level (LwA) during machining on cam-pump machine Lwa=83dB(A) Lwa=100dB(A) K measurement uncertainty dB(A) 4.



Machine with complete type B cell

FOOTPRINT

	L		W		H	H max
	mm/inch					
	NCE	CE	NCE	CE		
Rover S FT 1224	13255/522	12887/507	4771/188	4807/189	985/39	2445/96
Rover S FT 1236	16959/668	16619/654	4771/188	4807/189	985/39	2445/96
Rover S FT 1536	16959/668	16619/654	5107/201	5102/251	985/39	2445/96
Rover S FT 1836	16658/656	16619/654	5307/209	5372/211	985/39	2445/96
Rover S FT 2231	15054/593	14690/578	5802/228	5804/229	985/39	2445/96
Rover S FT 2243	18666/735	18304/721	5802/228	5804/229	985/39	2445/96



Machine stand alone, 3 side access

WORKING FIELD

	X	Y	Z		
	mm/inch				
			WITHOUT SWEEPER ARM	WITH SWEEPER ARM	PENDULUM WITHOUT SUSPENSION
Rover S FT 1224	2465/97	1260/50	170/7	105/4	-
Rover S FT 1236	3765/148	1260/50	170/7	105/4	1450/57
Rover S FT 1536	3765/148	1560/61	170/7	105/4	1450/57
Rover S FT 1836	3765/148	1875/74	170/7	105/4	1450/57
Rover S FT 2231	3100/122	2205/87	170/7	105/4	1120/44
Rover S FT 2243	4300/169	2205/87	170/7	105/4	1720/68

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.

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

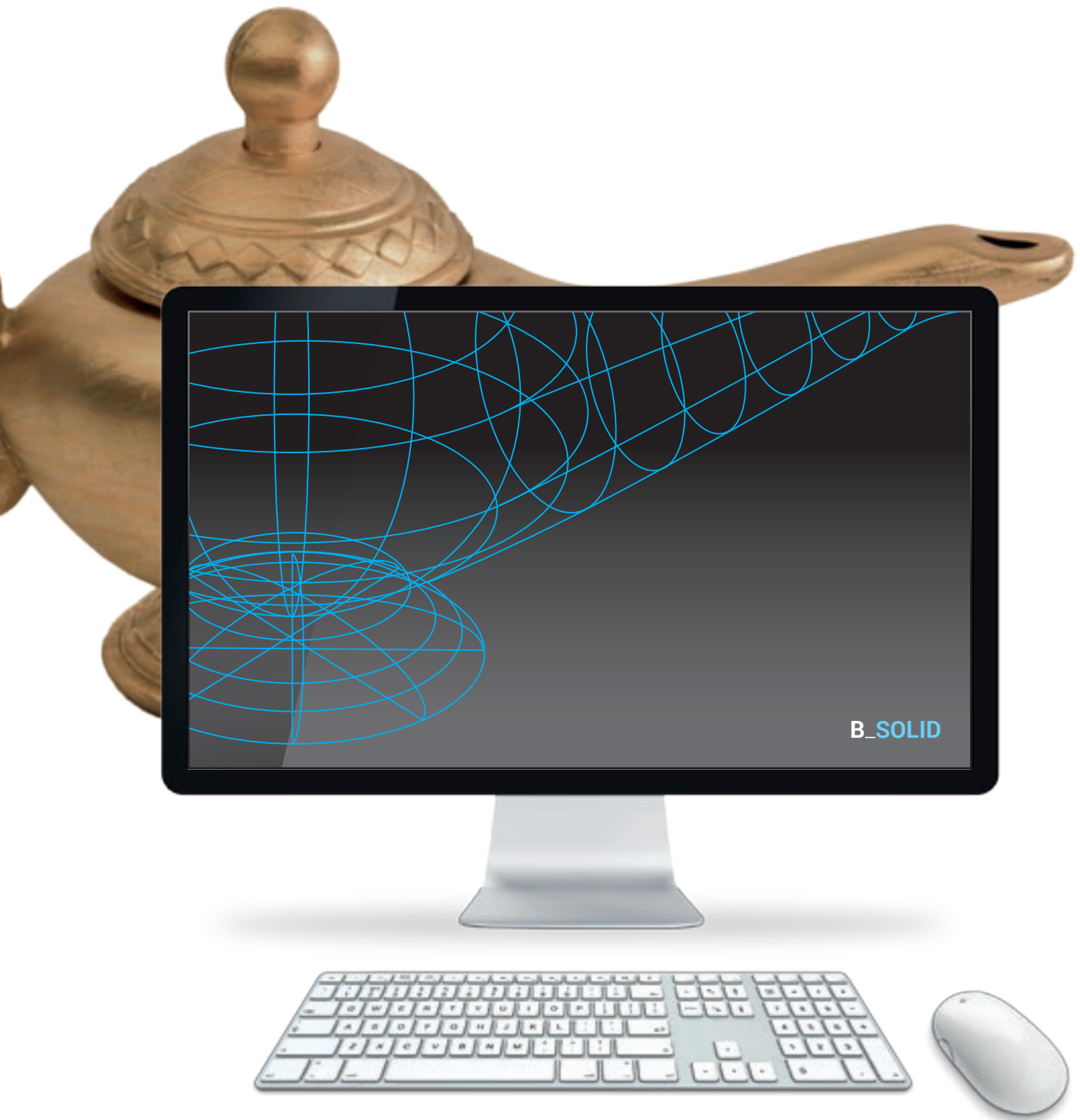


B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

- 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 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.

- 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**

SERVICE & 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

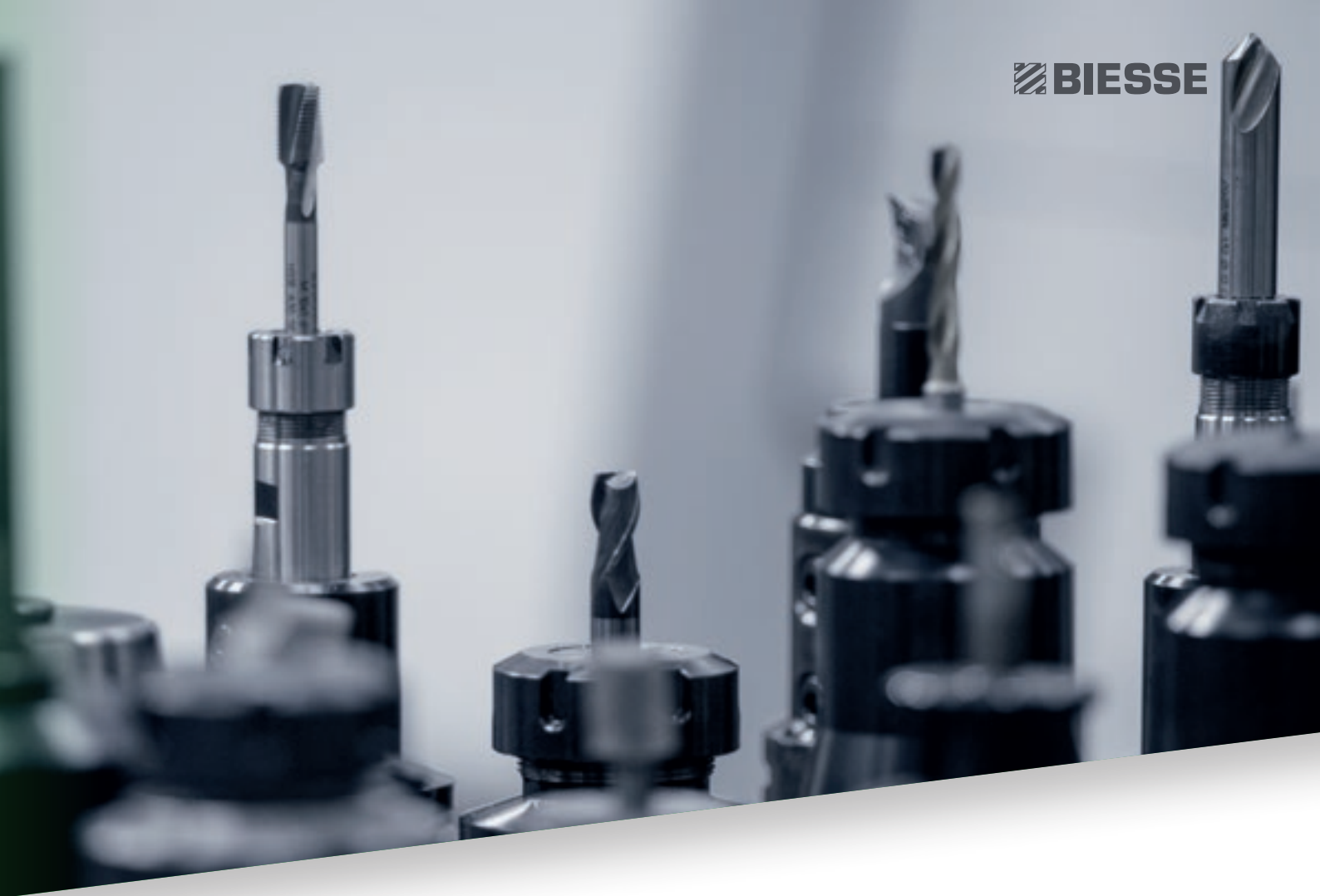
Biesse engineers manning a Teleservice Centre.

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

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 recre-

ating 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 some-

one 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.

MATON AND BIESSE MAKE MUSIC TOGETHER

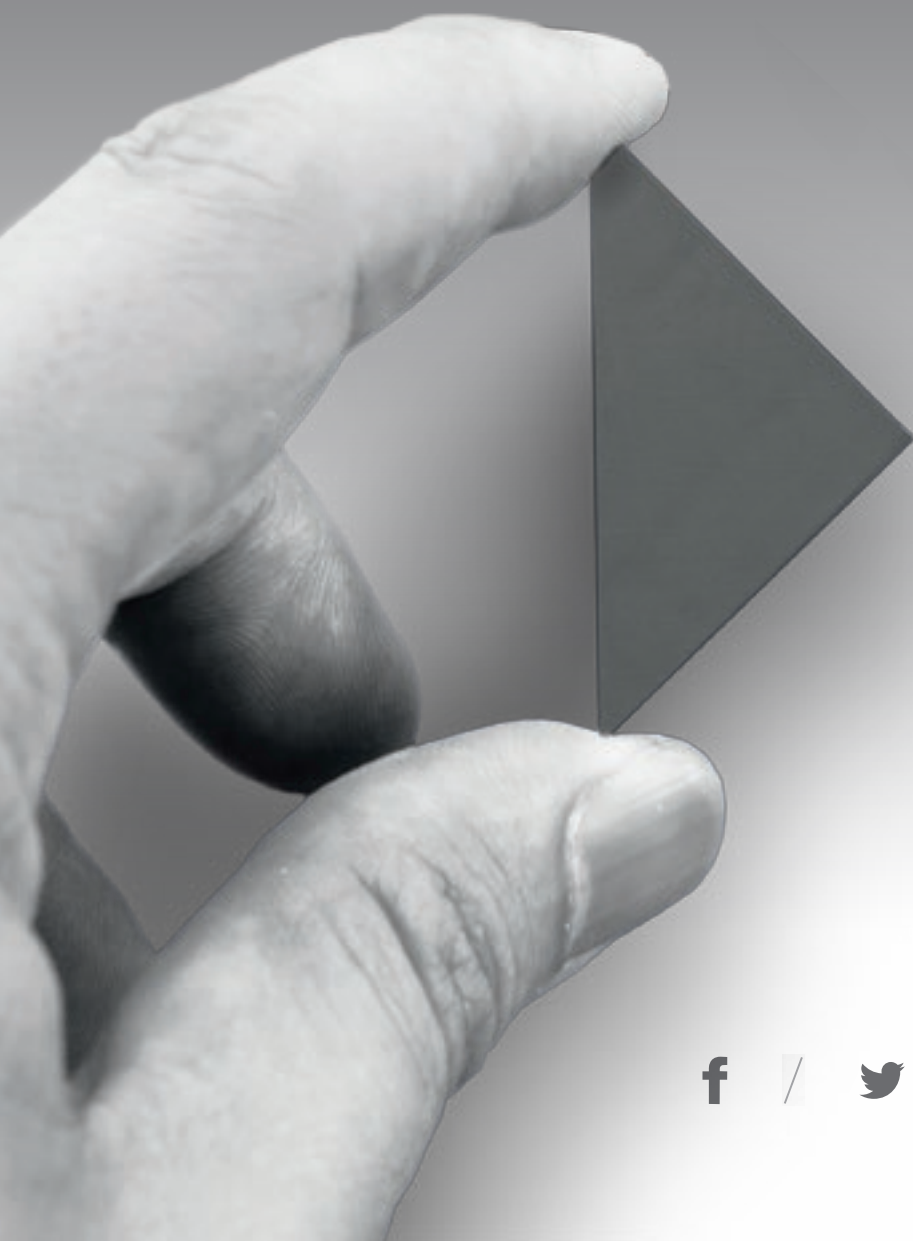
With more than 1200 models of guitars made for thousands of professional musicians, Maton Guitars confirms its worldwide presence, becoming a truly great Australian success story. "The best guitar is the one that the market demands," states Patrick Evans, Head of Product Development at Maton. The evolution 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 produce 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

LIVE THE EXPERIENC



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