

PRO VER BFT

NC PROCESSING CENTRE



 **BIESSE**


 **BIESSEGROUP**

THE ULTIMATE IN NESTING PROCESS PRODUCTIVITY



THE MARKET DEMANDS

a change in manufacturing processes which enables 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 defined delivery times, as well as responding to the needs of highly creative designers.

BIESSE MEETS

these requirements with technological solutions that influence and support technical expertise as well as process and material knowledge. The new version of the **Rover B FT** numerical control centre has fast become the new point of reference in the market for the production of small doors, furniture and furnishings, frames for living room furniture and also technological materials such as honey-comb structures, plexiglass, methacrylate, and sheets in plastic and alucobond.



ROVER BFT

- ✔ PRODUCTION FLEXIBILITY THAT IS UNIQUE ON THE MARKET
- ✔ FULLY INTEGRATED INTO A WORKING CELL
- ✔ OPTIMAL CLEANING OF MACHINED COMPONENTS AND WORK AREA
- ✔ THE MOST ADVANCED TECHNOLOGY CLOSE AT HAND.

PRODUCTION FLEXIBILITY THAT IS UNIQUE ON THE MARKET

Customisable configurations in accordance with different production needs

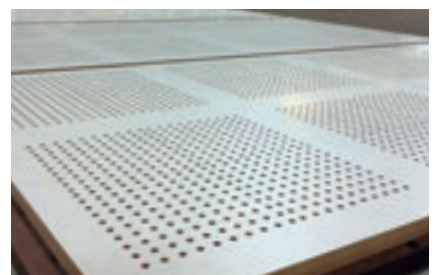


Configuration with a 4-axis working unit combined with a 5-axis working unit, for maximum flexibility at all times.



Configuration with 2 identical working units to maximum the production of elements.

BIESSE'S SECTOR-LEADING TECHNOLOGY AND 10-YEAR EXPERIENCE IN NESTING PROVIDE THE PERFECT RESPONSE TO AN EXTENSIVE RANGE OF APPLICATIONS



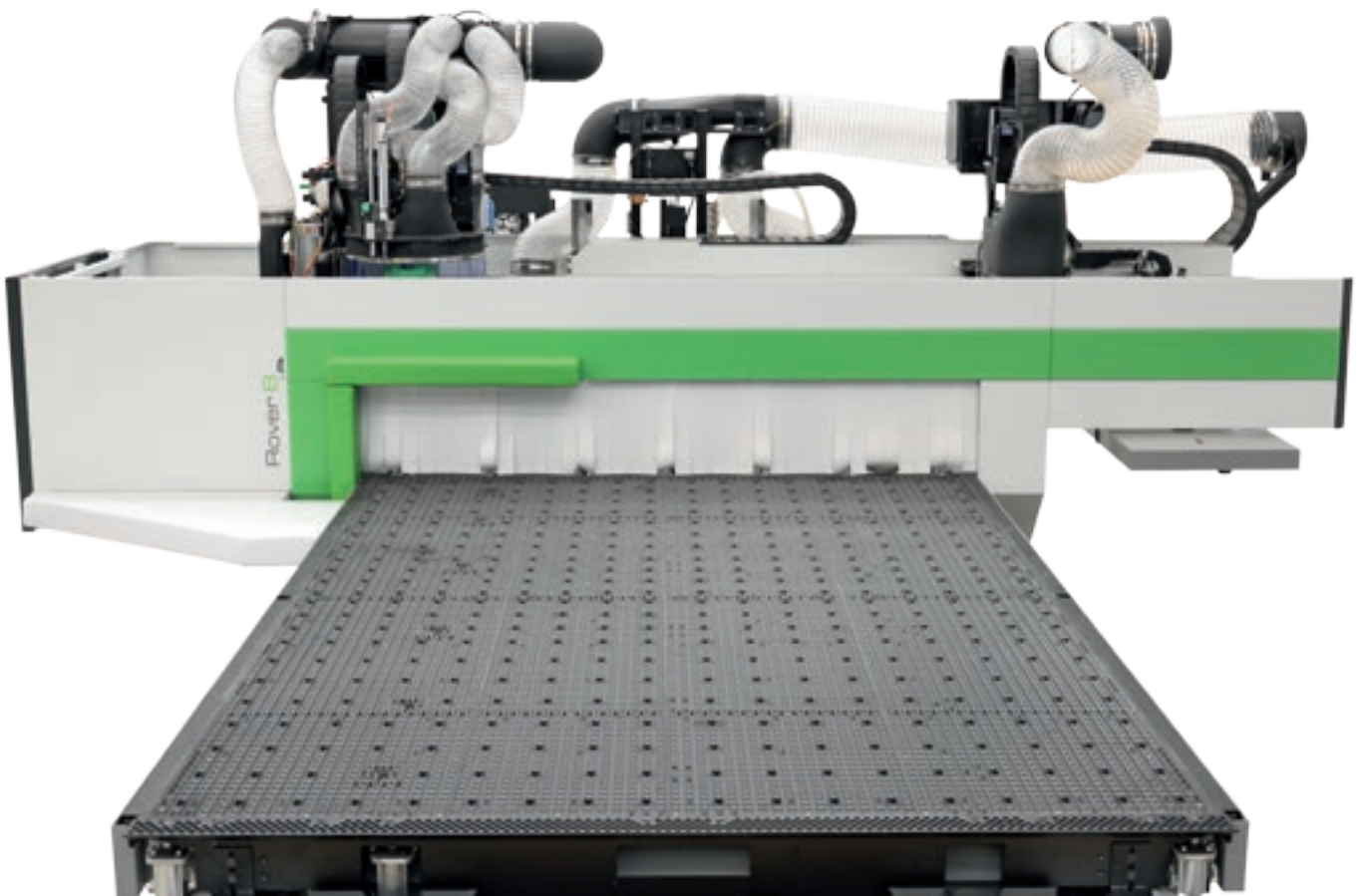
The modularity of the design allows Biesse to deliver machines with configurations which are customised to meet the requirements of individual customers.

HIGH PRECISION AND RELIABILITY OVER TIME

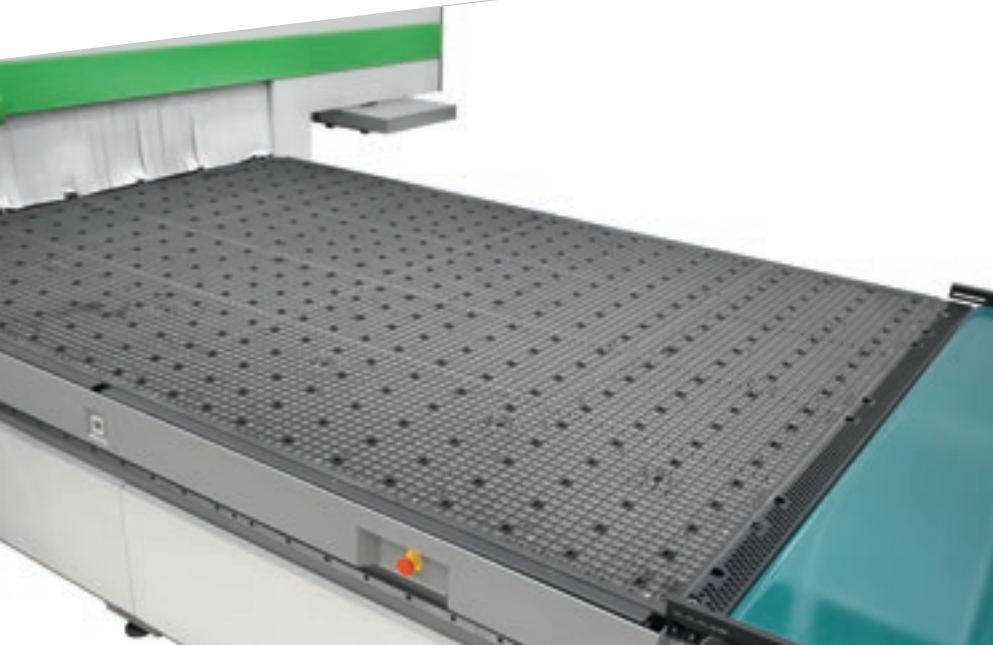
Rover B FT has a robust and well-balanced structure, designed to handle demanding machining requirements without compromising product quality.



Higher motor power increases acceleration up to 5 m/s² and speed up to 120 m/min.



ABILITY TO HANDLE BOTH LARGE AND SMALL PANELS OF VARYING THICKNESS



Advanced work table technology to machine panels of different types and sizes with the utmost reliability.



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



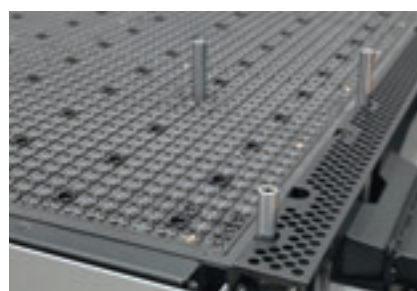
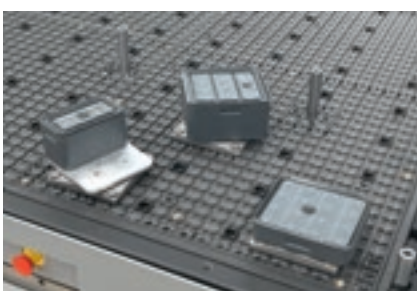
MAXIMUM PANEL GRIPPING THANKS TO AN ADVANCED VACUUM DISTRIBUTION SYSTEM BUILT INTO THE WORK TABLE



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.



Vacuum modules freely positionable on the FT work table without the need for dedicated connections.



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.

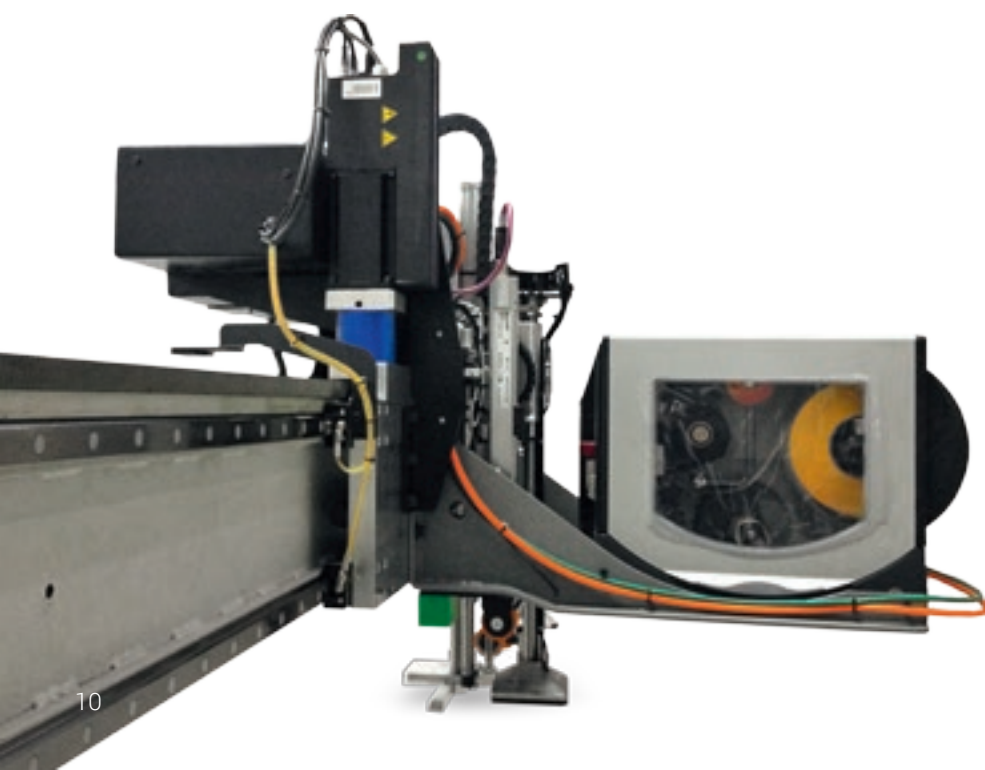
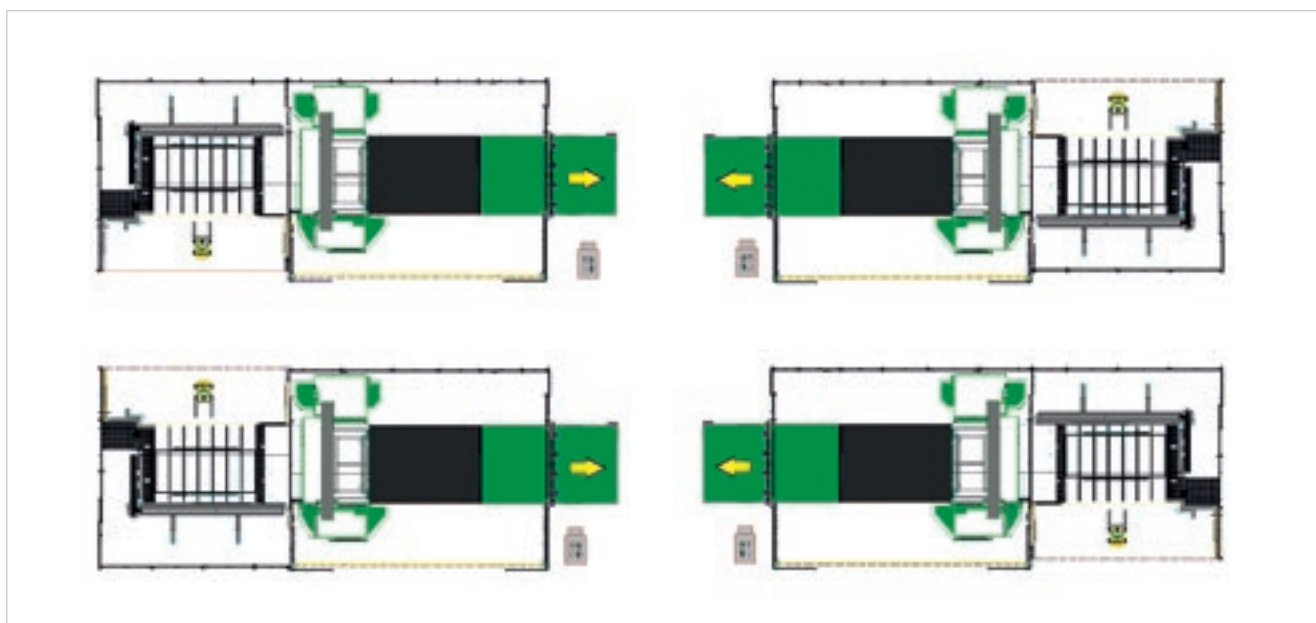
ROVER

FULLY INTEGRATED INTO A WORKING CELL

Rover B FT can be customised into a working cell to meet customer requirements.



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



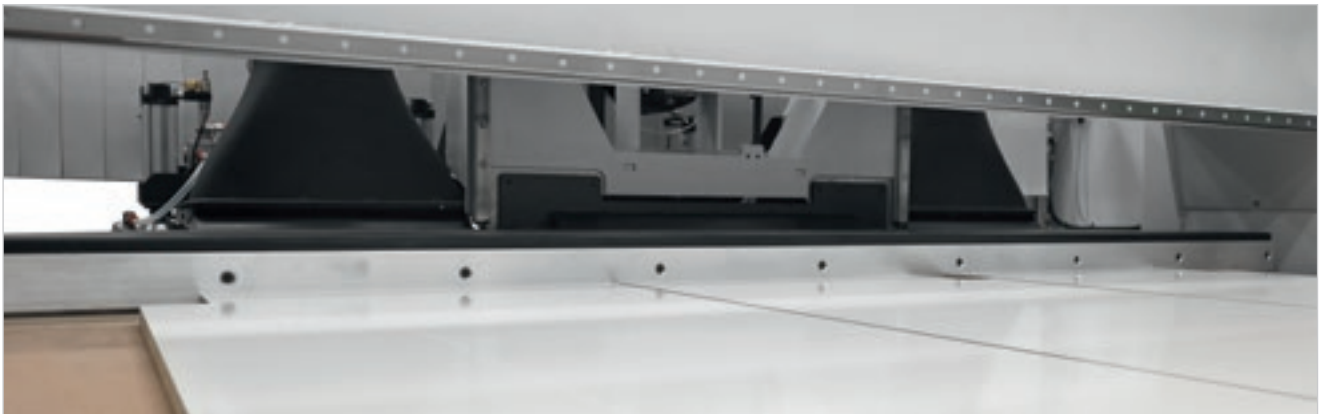
Panel identification and traceability within the production flow thanks to on-demand labelling system with touch screen.



LOADING AND UNLOADING SOLUTIONS

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

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



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



The separation systems can manage loads of breathable materials

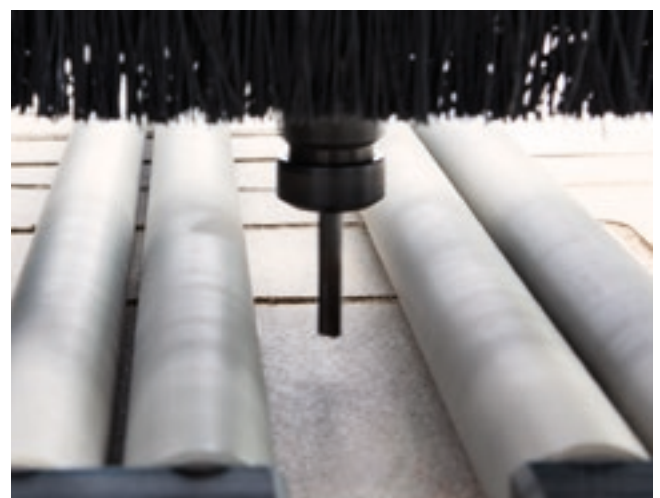
INCREASING MANUFACTURING CAPACITY



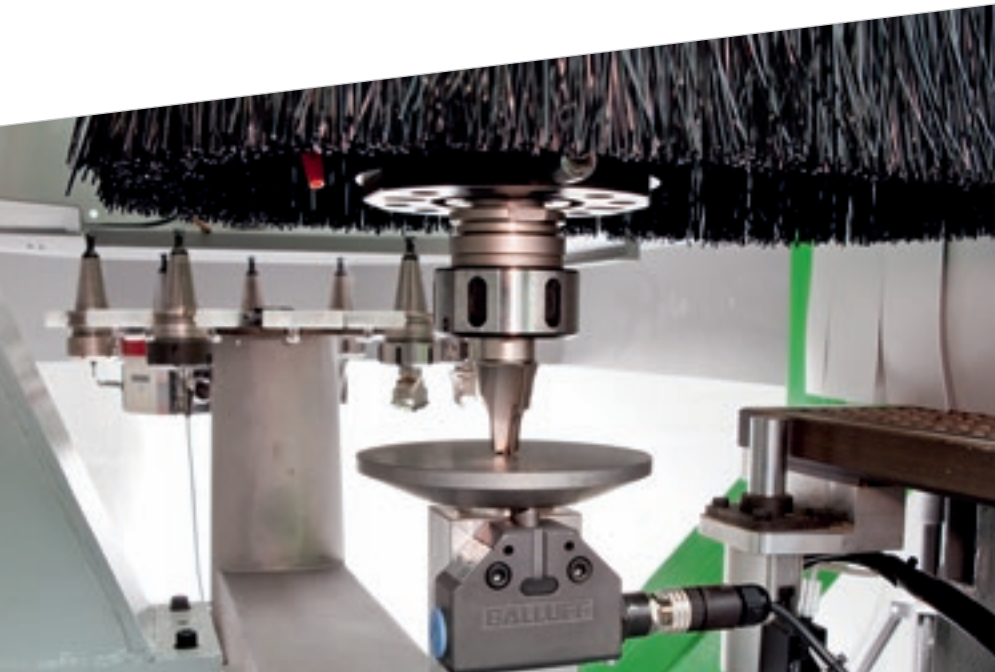
The **presser roller** supports machining of up to 3 stacked panels for sofa frames etc. and thanks to the automatic unloading function, there are no limits to the use of machining heads.



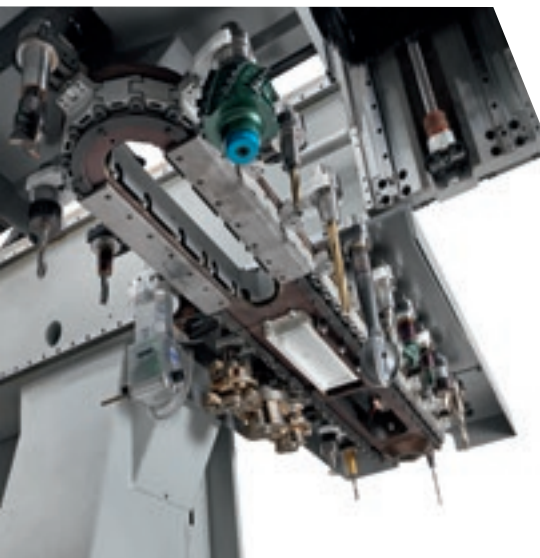
The loop presser supports the machining of curved and stacked panels by applying pressure to the upper surface of the panel.



Biesse boasts extensive experience in the machining of breathable materials arranged in overlapping sheets.

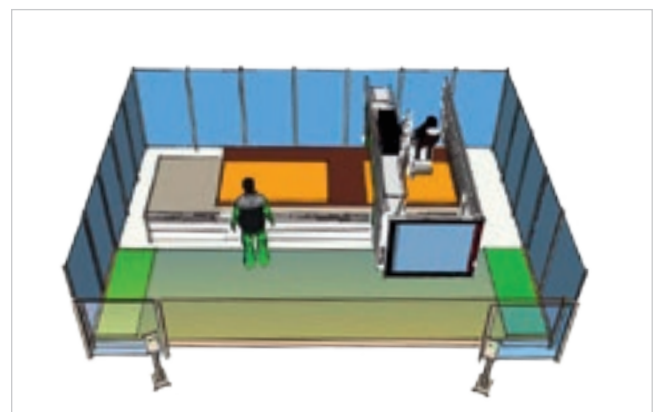
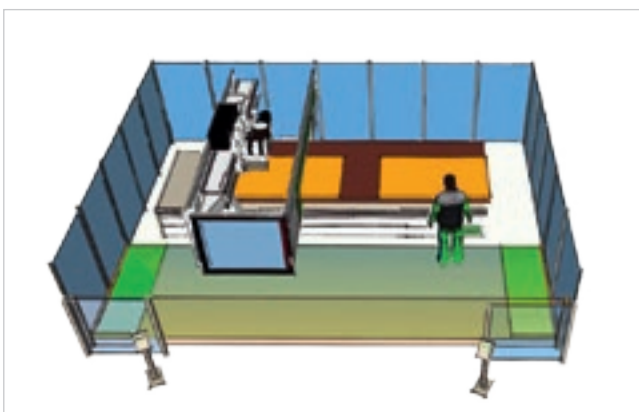


Reduction of tool change set-up time and the possibility of operator error, thanks to the contact pre-setter, which automatically determines the length of the tool.



8 to 49 tools and aggregates available in the tool changer, which are loaded automatically when switching from one machining operation to the next.

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.



PRODUCTION



COMPETITIVE CUSTOMISATION

Made-to-measure turnkey factories, plus the integration of Biesse Group solutions with complementary software and machinery, with over 1000 systems installed worldwide.

Biesse Systems is a team of highly trained engineers for large scale production processes. Biesse Systems offers integrated cells and systems that are capable of maximising customer competitiveness by combining mass production techniques with a high degree of customisation to meet customers' exact requirements.



LEAN, EFFICIENT PRODUCTION FLOWS



Winstore 3D K3 is an automated magazine for the optimised management of panels for companies who wish to increase their productivity, guaranteeing production with reduced times and costs.

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



The **Winstore 3D K3** 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.



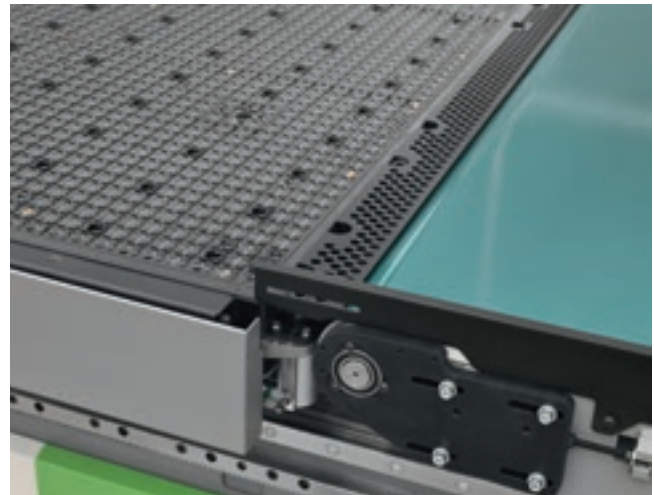
- ✔ **REDUCED DELIVERY TIMES**
- ✔ **REDUCED WAREHOUSE SPACE REQUIRED**
- ✔ **REDUCED LABOUR**
- ✔ **WASTE REDUCTION**
- ✔ **LESS RISK OF DAMAGING PANELS.**

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.



Dust intake manifold between machine and unloading belt.



Additional aspiration kit for unloading belt consisting of 2 suction hoods, on the top and end of the belt.

MAXIMUM OPERATOR SAFETY

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.



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

Working unit total protection. Maximum visibility of machining operation. LED bar with 5 colours showing machine status in real time.



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.

INDUSTRY 4.0 READY

HIGH-TECH BECOMES ACCESSIBLE AND INTUITIVE

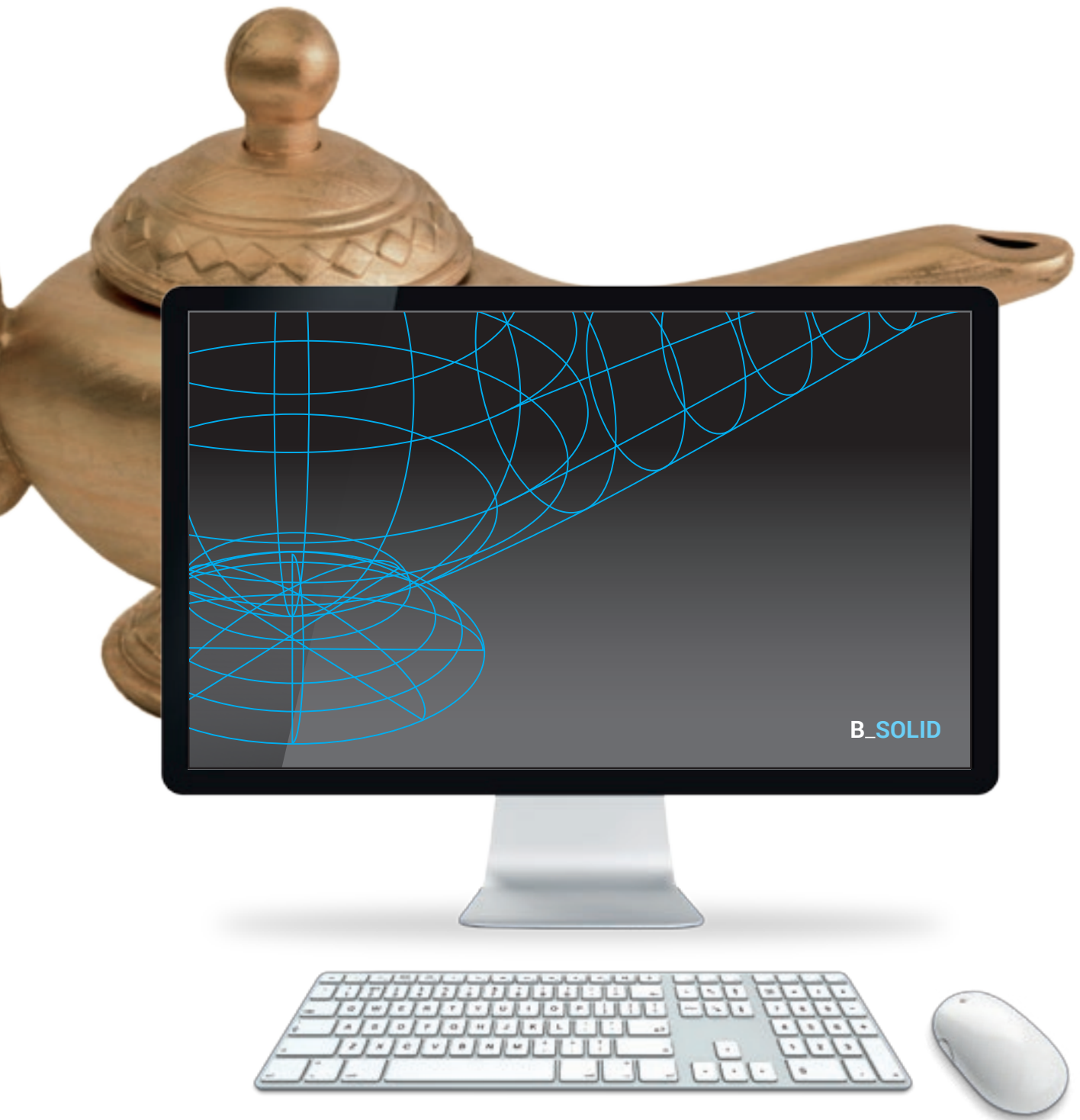


B_SOLID IS A 3D CAD CAM SOFTWARE PROGRAM THAT SUPPORTS THE PERFORMANCE OF ANY MACHINING OPERATION THANKS TO VERTICAL MODULES DESIGNED FOR SPECIFIC MANUFACTURING PROCESSES.

- 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.

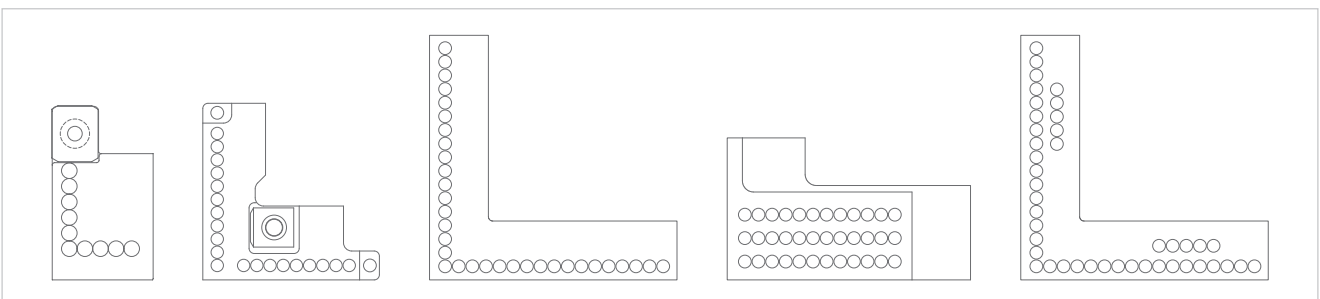
B_CABINET FOUR (SUPPLEMENTARY MODULE) MAKES IT EASY TO MANAGE ALL THE WORK PHASES (CUTTING, MILLING, BORING, EDGEBANDING, ASSEMBLY, PACKAGING), JUST WITH A CLICK.

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



CONFIGURATION



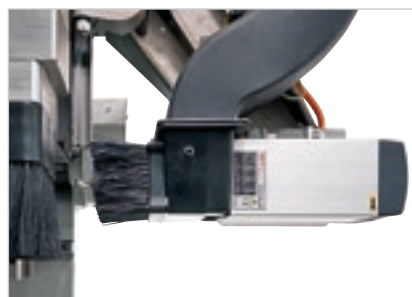
Milling unit for 10-20-32-36-42 tool

The milling units for 10-20 tools are available with horizontal tool kits and blades.

A COMPLETE RANGE OF AGGREGATES



EXCEPTIONAL FINISH, INCREASED PRODUCTIVITY



The multi-function unit, which can be continuously positioned over 360° by NC, can house aggregates used to carry out specific machining operations (pocketing for locks, hinge housings, deep horizontal bores, edge trimming, etc.).



Horizontal motor with one outlet for lock routing and horizontal machining operations.



Fixed vertical motor dedicated to additional milling machining operations (slot, anti-splintering, etc.).

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.

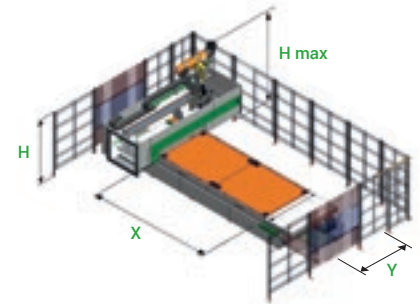
PARTS
SOPHIA

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 SPECIFICATIONS

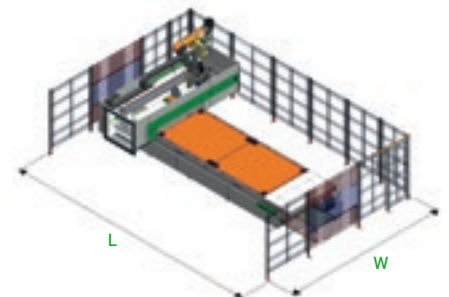


WORKING FIELDS AND HEIGHT Z

	X		Y		Z		H		H max	
	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	2465	97	1260	50	250	10	1980	78	2880	113
Rover B FT 1536	3765	148	1560	61	250	10	1980	78	2880	113
Rover B FT 1564	6450	254	1560	61	250	10	1980	78	2880	113
Rover B FT 1836	3765	148	1875	74	250	10	1980	78	2880	113
Rover B FT 2231	3100	122	2205	87	250	10	1980	78	2880	113
Rover B FT 2243	4300	169	2205	87	250	10	1980	78	2880	113
Rover B FT 2264	6450	254	2205	87	250	10	1980	78	2880	113

OVERALL DIMENSIONS FRONT ACCESS

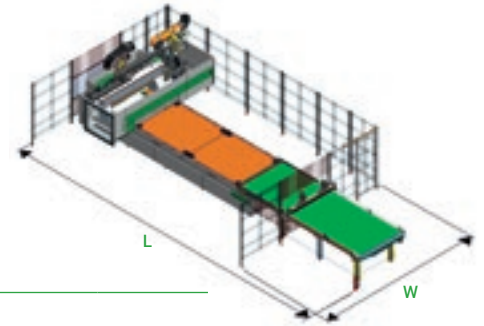
	L		W		W	
	mm	inch	Single config		Dual config	
			mm	inch	mm	inch
Rover B FT 1224	6855	270	5202	205	-	-
Rover B FT 1536	8128	320	5470	215	-	-
Rover B FT 1564	10820	426	5470	215	-	-
Rover B FT 1836	8130	320	5800	228	-	-
Rover B FT 2231	7348	289	6307	248	6607	260
Rover B FT 2243	8578	338	6307	248	6607	260
Rover B FT 2264	10704	421	6307	248	6607	260



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

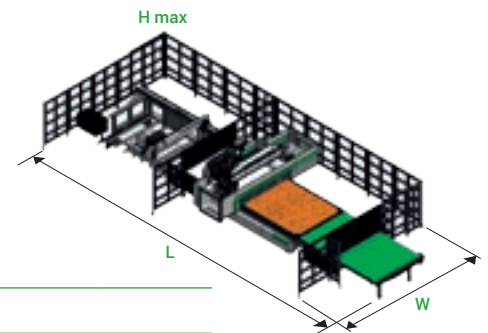
A weighted sound pressure level A (LpA) during machining for operator workstation on vane-pump machine Lpa=79dB(A) Lwa=96dB(A). A-weighted sound-pressure level A (LpA) for operator workstation and sound power level (LwA) during machining on cam-pump machine Lwa=83dB(A) Lwa=100dB(A) K measurement uncertainty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

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.



UNLOADING BELT ONLY

	L				W			
	LH->RH		RH->LH		Single config		Dual config	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	8210	323	7810	307	4742	187	-	-
Rover B FT 1536	10710	422	10340	407	5050	199	-	-
Rover B FT 1836	10704	421	10704	421	5380	212	-	-
Rover B FT 2231	9046	356	8948	352	6307	248	6607	260
Rover B FT 2243	11463	451	11365	447	6307	248	6607	260
Rover B FT 2264	15547	612	14807	583	6307	248	6607	260



NESTING CELL TYPE A

	L				W			
	LH->RH		RH->LH		Single config		Dual config	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	10280	405	9730	383	4708	185	-	-
Rover B FT 1536	14106	555	13461	530	5060	199	-	-
Rover B FT 1836	14106	555	13461	530	5335	210	-	-
Rover B FT 2231	12102	476	11481	452	5707	225	6007	236
Rover B FT 2243	15762	621	15064	593	5707	225	6007	236
Rover B FT 2264	20499	807	19809	780	5707	225	6007	236

NESTING CELL TYPE B

	L				W			
	LH->RH		RH->LH		Single config		Dual config	
	mm	inch	mm	inch	mm	inch	mm	inch
Rover B FT 1224	12920	509	12940	509	4742	187	-	-
Rover B FT 1536	16660	656	16650	656	5080	200	-	-
Rover B FT 1836	16680	657	16650	656	5380	212	-	-
Rover B FT 2231	14678	578	14717	579	5707	225	6007	236
Rover B FT 2243	18308	721	18317	721	5707	225	6007	236
Rover B FT 2264	23075	908	23062	908	5707	225	6007	236

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

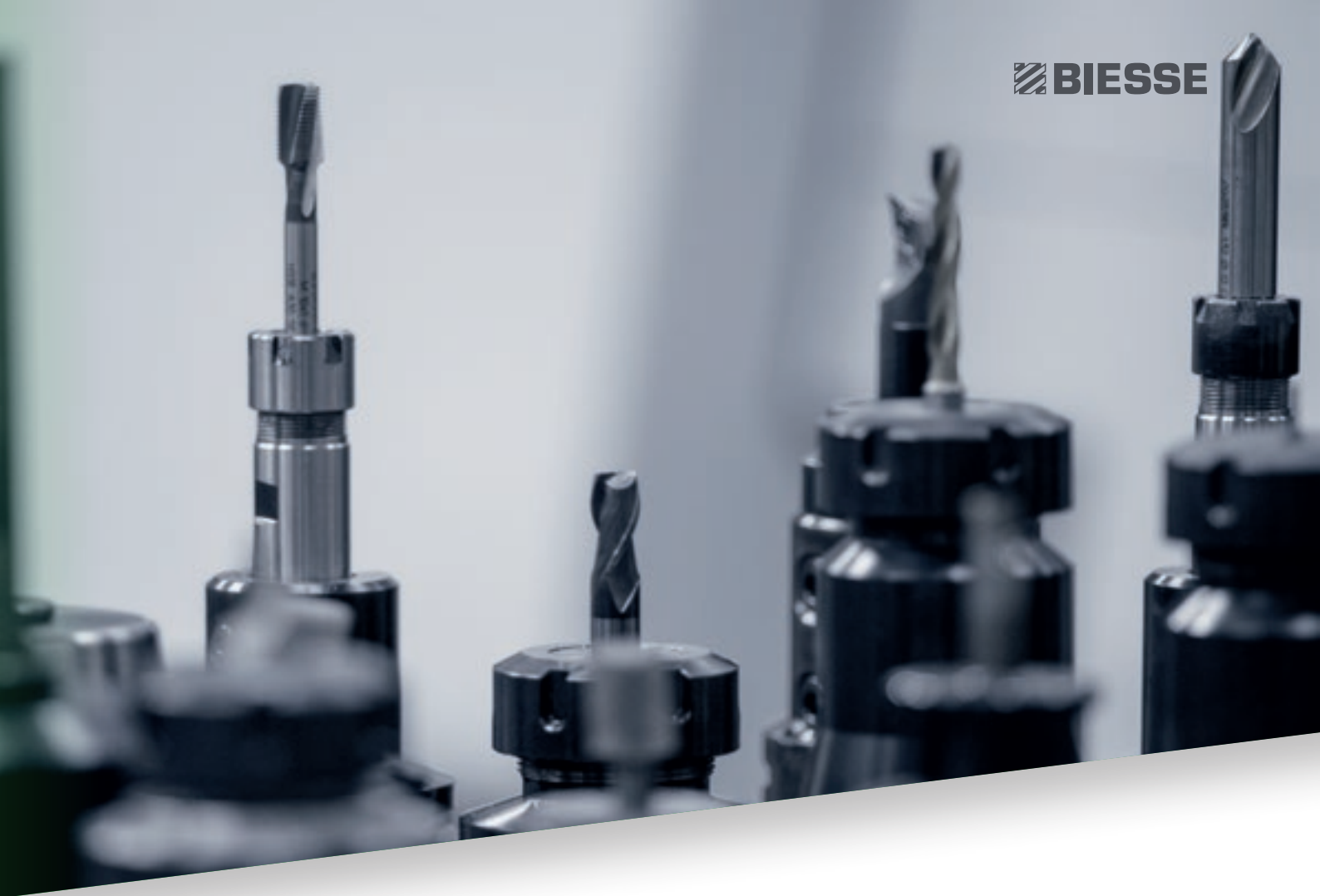
Biesse engineers manning a Teleservice Centre.

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 standard double-flute and others with more complex, multi-fluted designs. They are set against a blurred background, highlighting their metallic texture and sharp edges.

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

WOOD-SKIN + BIESSE, DYNAMIC DESIGN BECOMES INTELLIGENT

Digital material. This is how **Giulio Massotti, 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-

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

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.

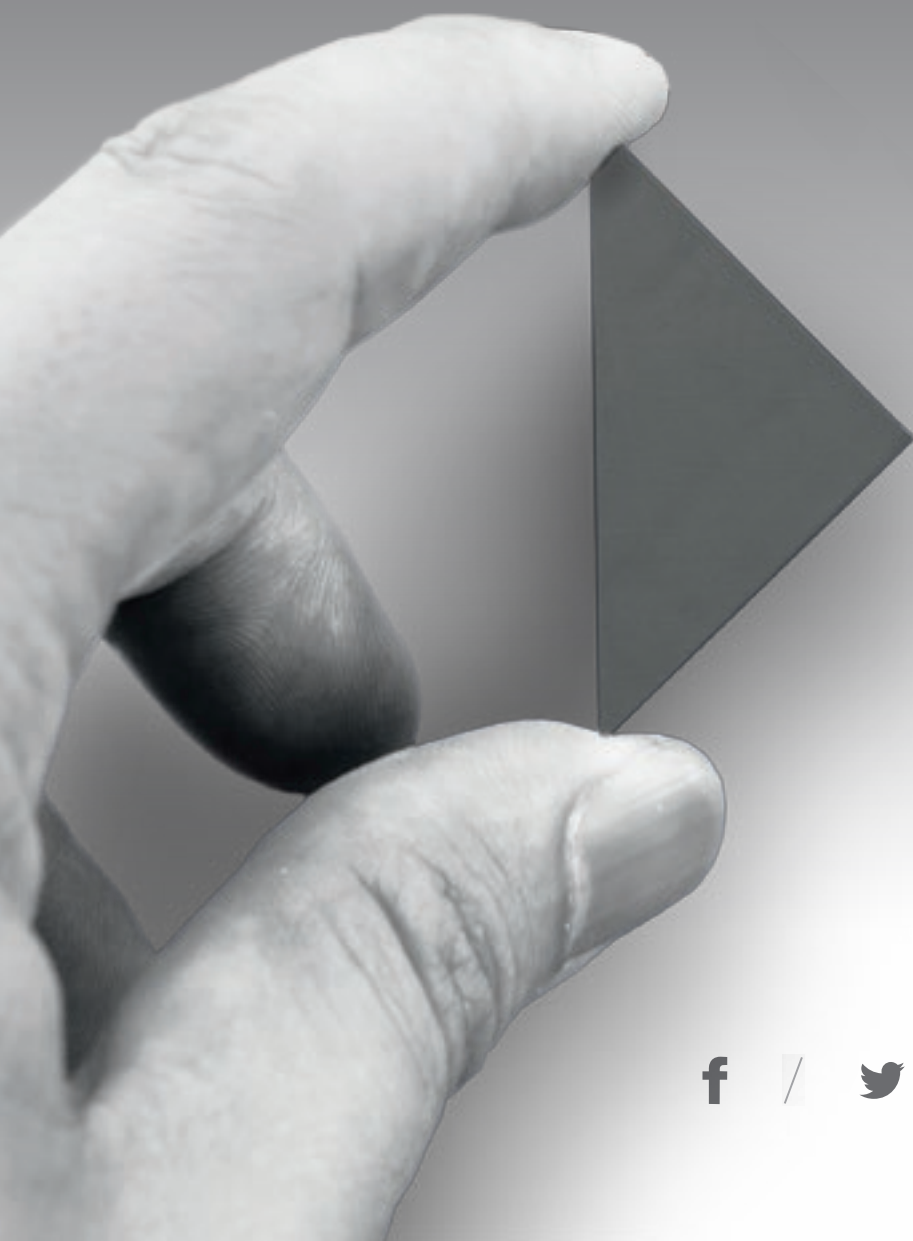
This is not merely a prototype, but rather a concrete result which will give rise to a line of products in the not-too-distant future.”

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.



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**

